STUDENT'S E-PLANNER

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ABSTRACT

Student's E-Planner is web-based planner, targeted for students in University of Malaya. The main agenda is to provide these students an electronic planner that they can access whenever they want and wherever they are, as long as there is an Internet connection. Additionally this planner helps the students to be more organized in managing their daily tasks in a systematic way. This project consists of 2 main modules, which are the administrator module and the student module. The administrator module does all the control and management of the planner and the student module use the system. The system is expected to make students life more easier to organize and manage while at the same time keep track of their busy schedule.

ACKNOWLEDGEMENTS

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INTRODUCTION

1.1 PROJECT INTRODUCTION.

Nowadays, a student has to cope with all sorts of things concerning their academic studies. One can see that students have to keep track of all their classes, tutorials, tests, assignments, appointments and examinations in one complete semester. Of course to do just that, students have to have a very good time management. To manage their time, students usually turn to organizers or planners to manage all their activities and schedules more efficiently. As one is getting busier and busier by the day, it is almost impossible to memorize all the appointments, meetings and discussions by oneself. That's why a planner plays an important role to lessen the burden of remembering all these things.

Yet, all the planners that available in the market are not focusing on the students needs. For instance the calendars are not schedule according to the semester calendar. Additionally, this planner that are available in the market and used by these students are paper-based. As we all know, a lot of these planners come with a hard cover, so it is quite heavy. Nonetheless, because it is paper-based, the students have to carry it around campus to jot down all the important dates into their planners.

By using the latest technology in Information Technology like ASP (Active Server Pages), these paper-based planners are switched to a more effective and powerful planner, called E-Planner. Since, students are the targeted user group, what a better way to call it **Student's E-Planner**. This system promised

to have all the functions that are essential to student's needs to organize and manage their time and schedule better.

1.2 PROJECT OBJECTIVES

This project promised to develop an interactive online planner that will enhance the capabilities of planner that available online nowadays. This electronic planner are hoped to achieve all of these objectives mentioned below:

1. Develop an online web-based planner system that caters especially for student's.

2. Create a dynamic system where the students will have the opportunity to personalized all the inputs themselves in a more efficient way.

3. To create a planner that focused on the things that has to be handled by students and at the same time maintaining the usual functions that of a usual planner.

4. Developed a good time management skills among the students and at the same time improve their academic achievements.

5. Remind the students of any important dates or tasks every time they log into the system.

6. Reduce the students' stress of remembering too many an important matter in their mind.

1.3 PROJECT SCOPE

There is a lot of similar system existed in the cyber world as we all known as Internet as we speaking right now. So what makes this project different from each of the existing ones? It depends entirely on the scope, which is like a guideline in developing a system. The contents of the system will focused on the scope mentioned below. Here is the scope of the project in hoped to develop a better planner that suits the students' needs:

1. **Powerful planner**

   Provide planner that can be easily updated and accessed. It will include the planner for each month and daily planner all in one easy-to-reach spot.

2. **Effective reminder**

   Interactive reminder is provided to remind the students of their important tasks after each successful login.

3. **Security and confidentiality**

   Maintain and secure the system of any unauthorized parties.

4. **Efficiency**

   Delivers the right output without much complication.

5. **Reliability and availability**

   To produce a reachable and stable system at all times.

6. **Multimedia interactivity**

   Using the power of multimedia to attract user's attention while using the system.

7. **User friendliness of the system**

   To achieve a very-easy-to-navigate user interface for the convenience of the user.

8. **Proper data management**

   Achieve data integrity and reliability in order to provide a reliable system.

9. **Proper content management**

   Provide an easy template to do any kinds of information updates.

1.4 PROJECT SCHEDULE

Schedule plays an important role in developing any kinds of system. It is almost the crucial part of a project that shows how properly managed a project is.

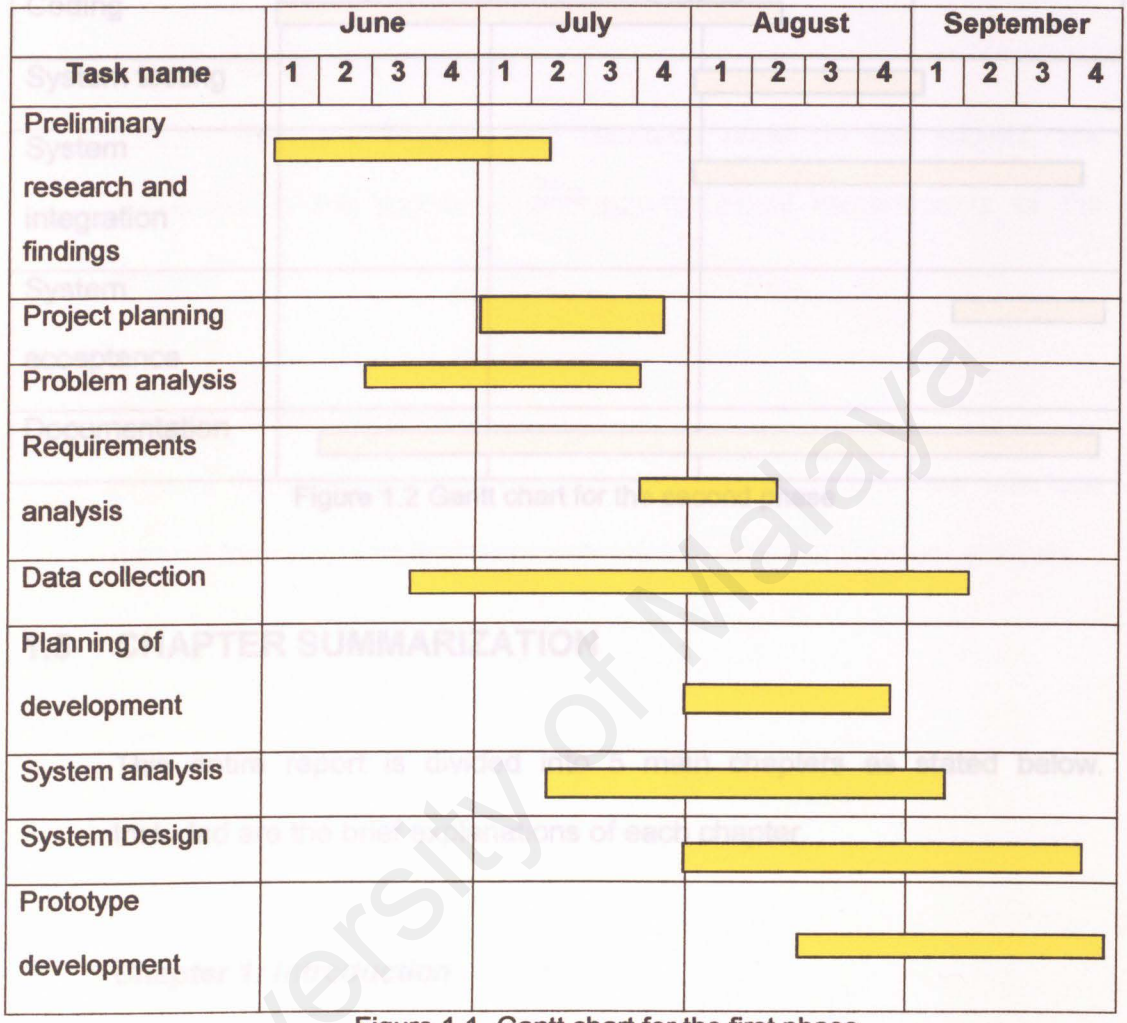

Figure 1.1 Gantt chart for the first phase

Illustrated above is the Gantt chart for the first phase of the proposed project. Shown are all the stages of system designing and analysis.

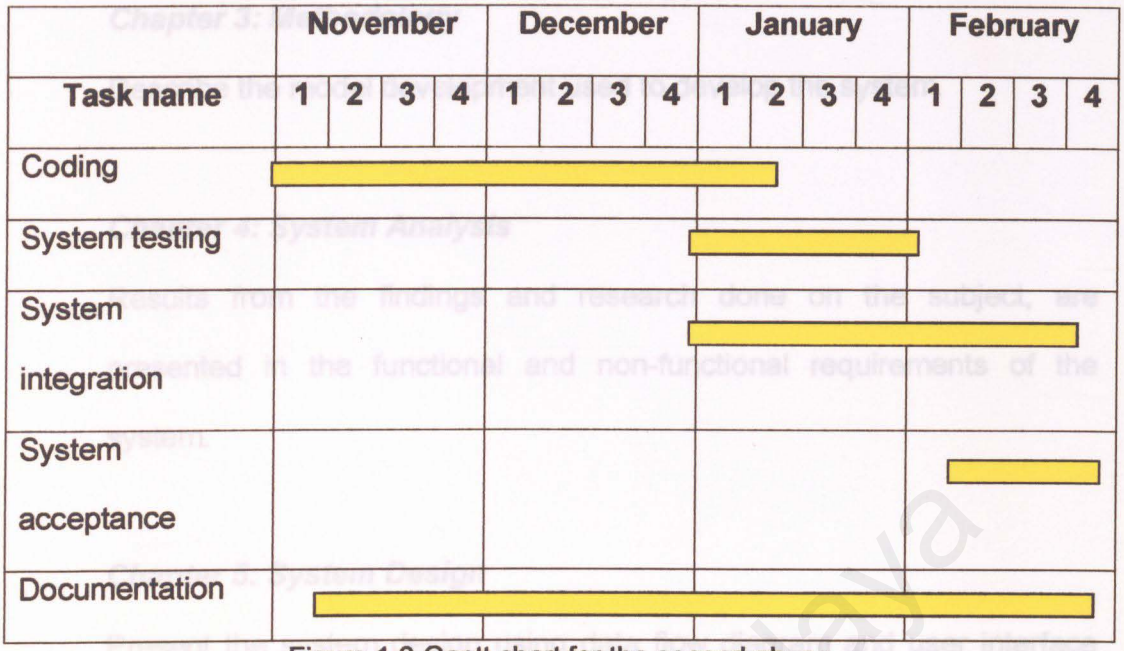

Figure 1.2 Gantt chart for the second phase

1.5 CHAPTER SUMMARIZATION

This entire report is divided into 5 main chapters as stated below. Included are the brief explanations of each chapter.

Chapter 1: Introduction

Introduces all the main aspects of the proposed project, **Student's E-Planner** such as the objectives, scopes, schedule etc.

Chapter 2: Literature Review

Basically a write up on the investigation done on the earlier systems from the Internet that relates to problems concerning proposed project.

Chapter 3: Methodology

Describe the model development used to develop the system.

Chapter 4: System Analysis

Results from the findings and research done on the subject, are presented in the functional and non-functional requirements of the system.

Chapter 5: System Design

Present the system design using data flow diagram and user interface derived from the identified requirements and data from system analysis.

Chapter 2
LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is definitely an important stage in developing this system. It is during this stage where all the elements needed to build such system is identified and by reviewing the existing system that is significant to the matter at hand. All the weakness, strengths, opportunities and threats surrounding the system that has been identified are done here.

2.2 WHY PLANNER

Nowadays, people tend to remember everything in their mind about the things that they have to take care of. They don't even bother to jot it down somewhere safe where they can view it later. In the end they tend to forget the very thing they suppose to do because their schedule is getting too hectic and there is a bunch of things that they have to do and remember. When this happens, that people turns to planner in hope that they can manage their time more properly this way.

Yes, planner allows you to be a well-organized person and time management is a very important matter. Without a proper time management, planning or scheduling the tasks at hand can be useless and frustrating at times.

2.3 TIME MANAGEMENT

2.3.1 INTRODUCTION

Time management is a skill that one has to develop in order to master it. It is all about managing your time well so that stress and disappointments that comes with poor or no time management can be avoided.

This skill is essential for people who wanted to be successful. It is a practical technique, which has helped the leading people in business, sport and public services, reach the pinnacle of their careers. If these people achieved that kind of success by having this skill so does a student.

2.3.2 ESSENTIAL SKILLS

Having a good time management skill helped you to become reliable and effective and show you how to identify and focus on the activities that gives you the greatest rewards. It is a vitally important skill for achieving what you want to achieve may it be long term or short term.

People who use this technique routinely are the highest achievers in all walks of life. If these skills are well used, one will be able to function effectively even under intense pressure. It will surely helped you to get the most out of the limited time you have.

This is neatly summed up in the Pareto Principal or the "80:20 Rule". Typically 80% of unfocussed effort generates only 20% results. The remaining 80% of the results are achieved with only 20% effort. The ratio is not always 80:20 in every case as this broad pattern of a small proportion of activity generating non-scalar returns recurs so frequently as to be the norm in many areas. Here, one point can be made which is, time are lost and wasted even though the right effort and measures are taken. This is so, mainly because one is lack in time management skill thus producing results that is unsatisfactory.

By applying the skills, not only you can optimize your effort, you can too, ensure that you concentrate as much of your time and energy as possible with the limited amount of time available to you.

2.3.3 THE IMPORTANCE OF SCHEDULING

Many people spend their days in a frenzy of activity, but achieve very little because they are not concentrating on the right things. To do the right things one has to plan a schedule to control all their tasks and routines.

By having a well plan schedule, there is no more need or rush to remember everything concerning all your tasks. Moreover, every details of your plan are laid out in the schedule. No more scattered papers when trying to look for the date to any important interviews anymore.

The key word in scheduling, are priorities. It is a matter of finding out what to spend your time on. This really helped when there is an overload of work to do and the very little time there is to complete those works. By concentrating on the right priorities, one can ensure to work as effectively as possible. Most people decides their priorities by dates, the earlier the due date is, the highest the priority.

2.2.3.1 TO DO LISTS

This list is a list of all the tasks that need to be carried out. The point here is to do all essential tasks, in the right order. It consolidates all the jobs that have to be done into one place. Prioritizing all these tasks onto order of importance will make things easier to manage and control.

It is very essential when different tasks or different sorts of task need to be carried out. Often people are so caught out because they have forgotten to do something, then a "to-do-list" is definitely the answer.

Whilst To Do Lists are very simple, nonetheless they are extremely powerful, both as a method of organizing yourself and as a way to reduce stress. When problems start to rise, it may seem overwhelming or there are a huge number of demands on your time. This will leave student feel out of control, overburdened with work and in the end start to losing it all.

Preparing this To Do Lists is a very easy task actually. What need to be done is, write down the tasks faced and do this until everything that needs to be done is listed. Students need to run through these jobs allocating priorities from A (very important) to F (unimportant). There is a time when there are too many tasks have a high priority, run through the list again and denote the less important ones. Once this is done, rewrite the list in priority order.

A precise plan will then be produced that will be used to eliminate the problems faced by students. They will be able to tackle these in order of importance. This will allow them to separate important jobs from the many time-consuming trivial ones.

When it comes to using this list, people tend to use it in different ways and in different situations. People who are busy, doesn't really have much time usually like to keep the list relatively short. When the deadline to certain tasks is running up, the priority is raised.

A To Do Lists are the keys to be really successful, productive and efficient. Carry out the jobs at the top of the list first as these are the most important, most beneficial tasks to complete.

2.4 EXISTING SYSTEM REVIEW

E-Planner has been around for quite some time. But there in not too many of them existed online. So for students, the choice is limited as there isn't any e-planner that truly suits need of the students. Listed here are a few examples of such system found on the Internet and a review on each of them.

2.4.1 http://www.studentcenter.org

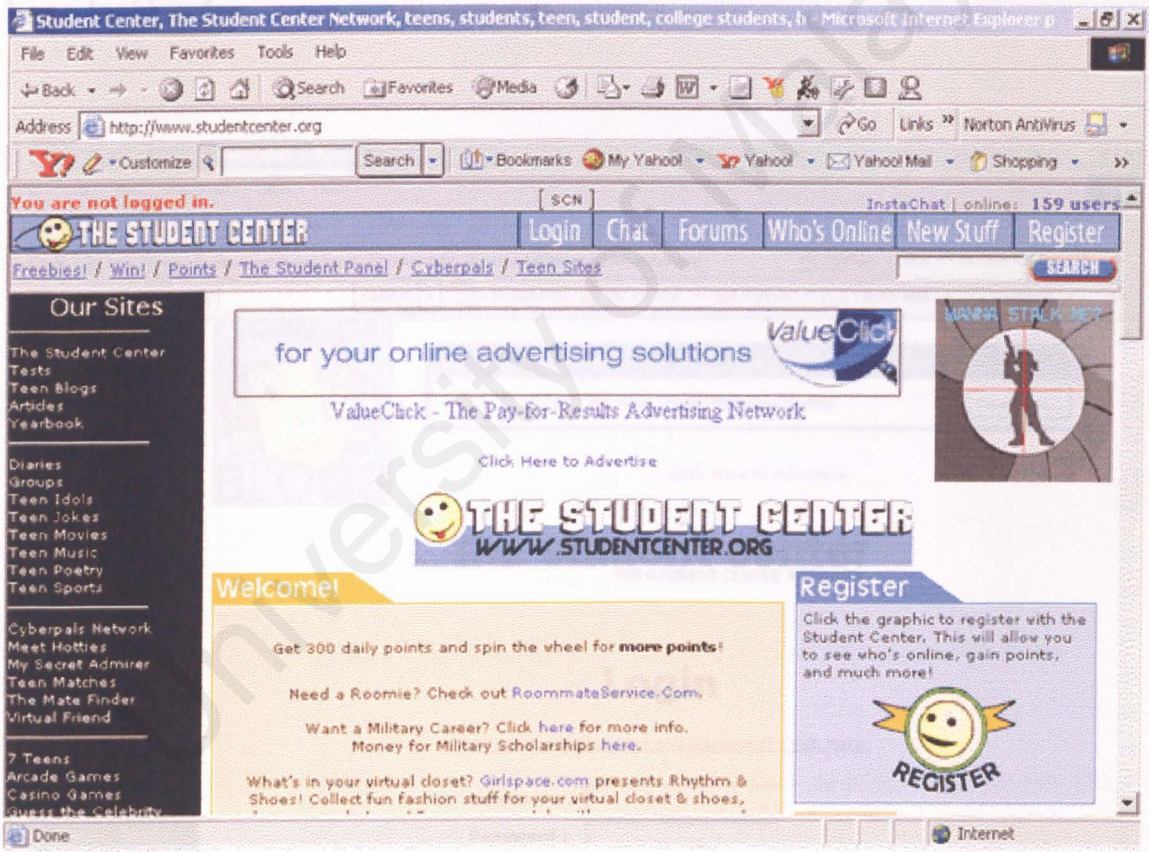

Figure 2.1 illustrates the main page for Studentcenter.org

Student center site not only provide online planner that they called organizer but provides other things that teens like to spend their time on when they goes online.

Some of the services provided by the site are chat, seeking new friends by the details that they have in their database about every member, diaries, forums and many more.

The layout of the main page is interesting for a teens website and it have almost all the needs for teens. But for a student who is only seeking for a planner, this site can be confusing to look for it for the first time user as they have to scroll down, reading each and every menu on the left-hand side until they found what they've been looking for.

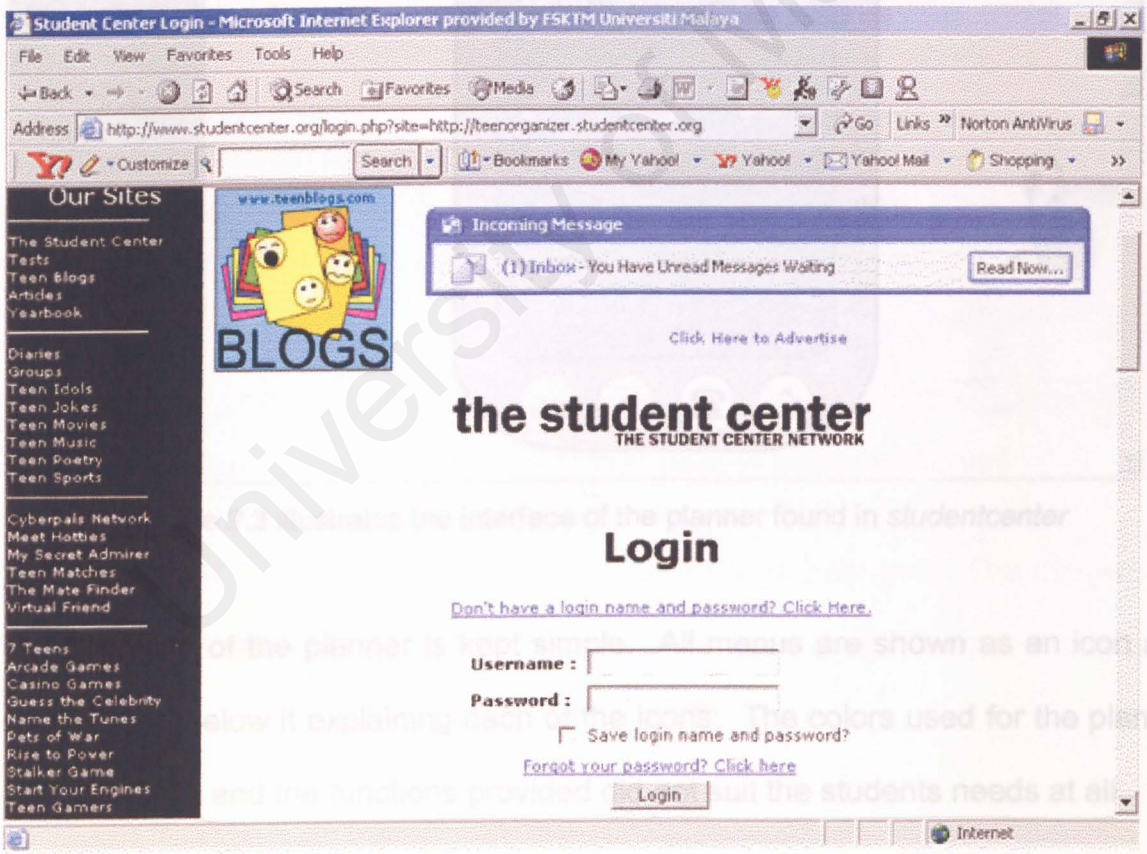

Figure 2.2 illustrates the login page to Studentcenter.org

The color used, in the interface are well blended. It is quite easy to the eyes of the user. The login page is kept as simple as possible because the user will not spent much time here. The simpler the interface will reduce the time spent on developing the page and much time can be given the page that need more attention and is important to the site.

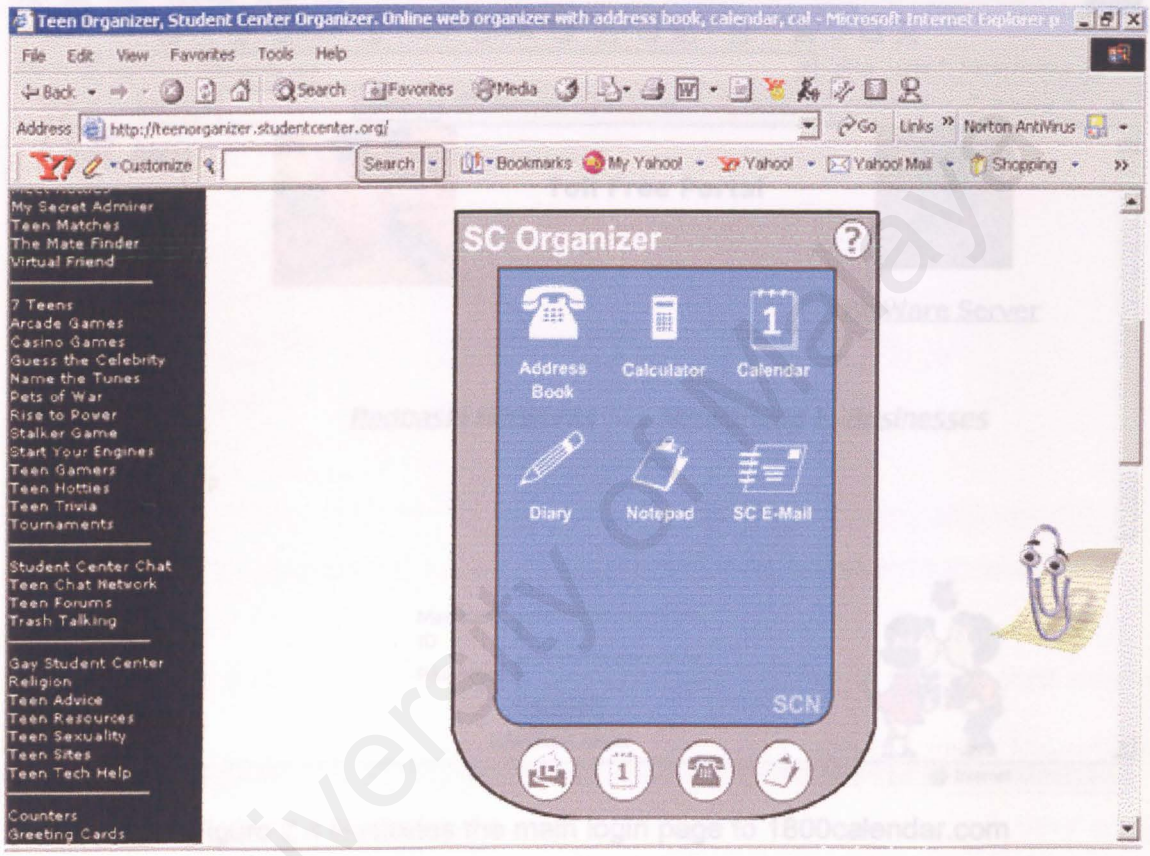

Figure 2.3 illustrates the interface of the planner found in *studentcenter*

The interface of the planner is kept simple. All menus are shown as an icon and there is text below it explaining each of the icons. The colors used for the planner isn't attractive and the functions provided did not suit the students needs at all.

Additionally the planner, have special functions for Diary and Notepad for students to jot down all the important things that doesn't have anything to do with calendar.

2.4.2 http://www.1800calendar.com

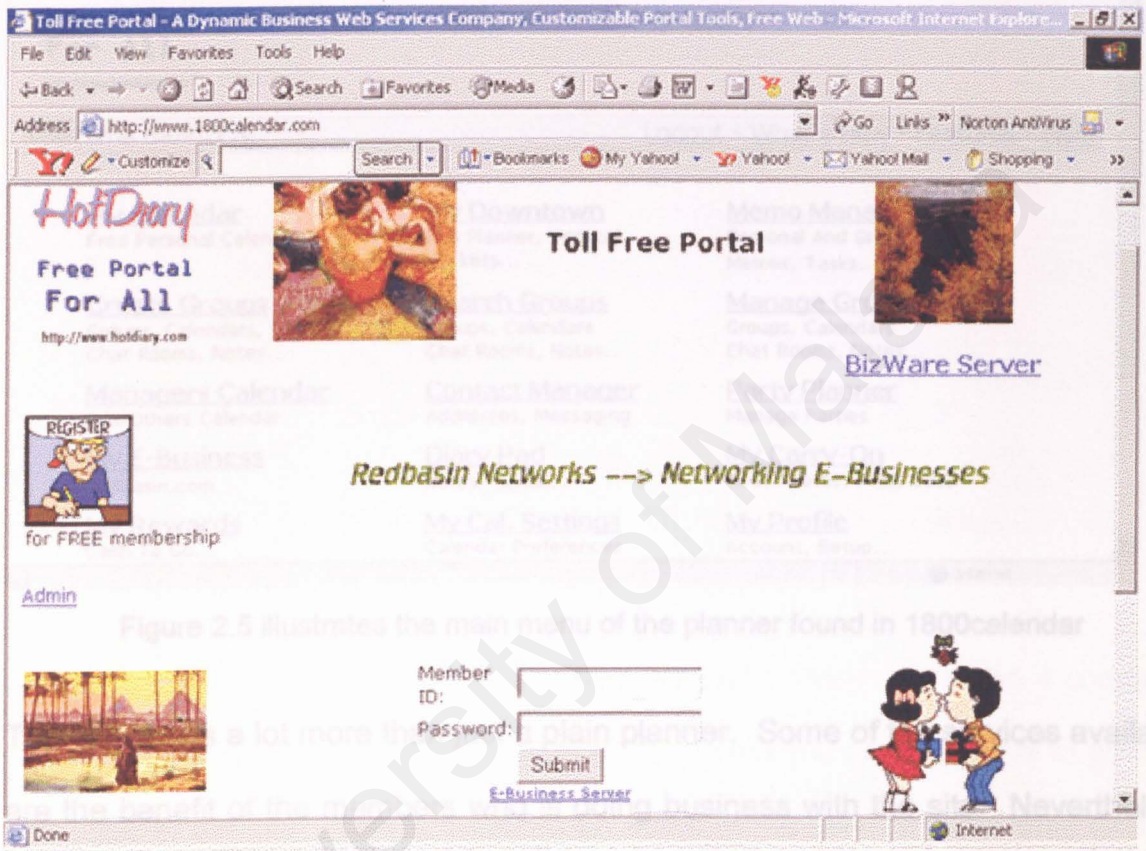

Figure 2.4 illustrates the main login page to 1800calendar.com

From observation, this main page is very simple and quite dull. The images are not suitable to what they have to offer. On a deeper look, the images is scattered around the page and were unorganized in a way.

On the brighter side, the main page is not crowded with menus as were the previous one. It is relatively simple and direct.

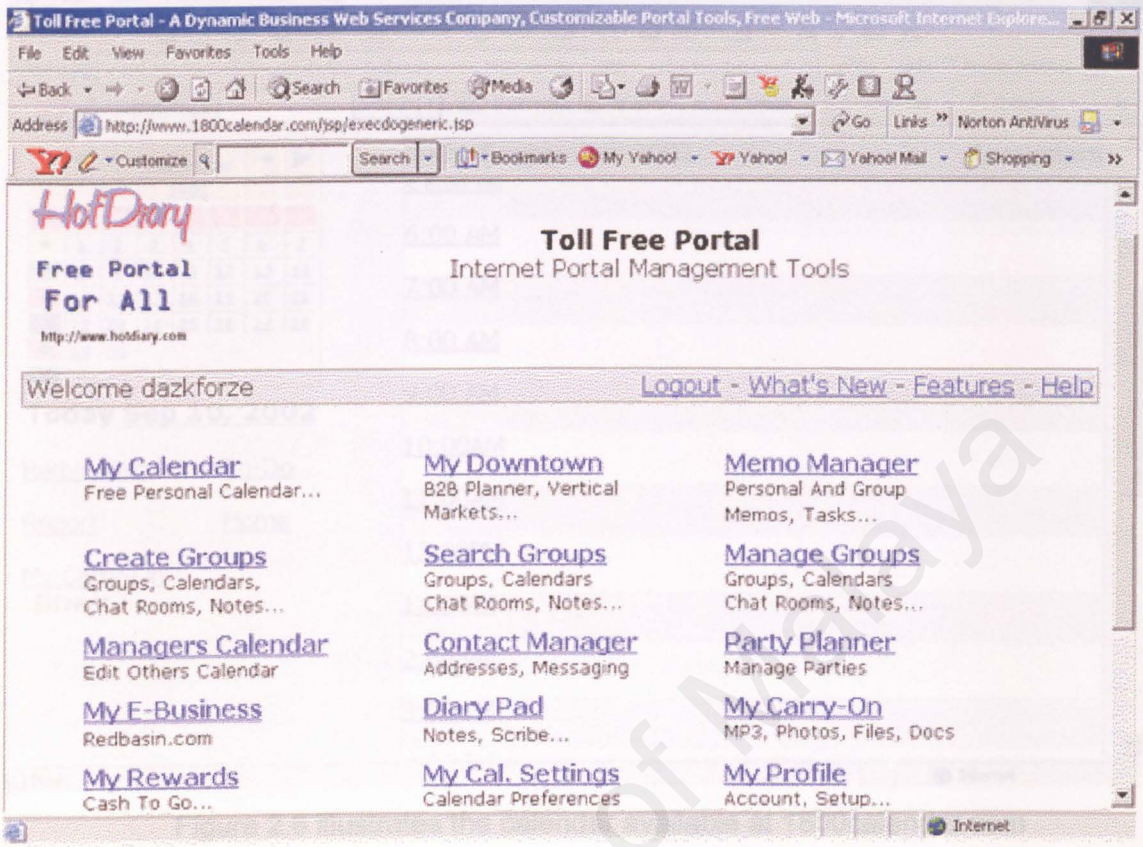

Figure 2.5 illustrates the main menu of the planner found in 1800calendar

This site offers a lot more than just a plain planner. Some of the services available are the benefit of the members who is doing business with the site. Nevertheless the menus are all organized in a nice manner. One can say that it is very easy to understand the function of each of those menus displayed because there is explanation underneath each menu. No menu buttons used, just a text link to other page in the site, which is very clear.

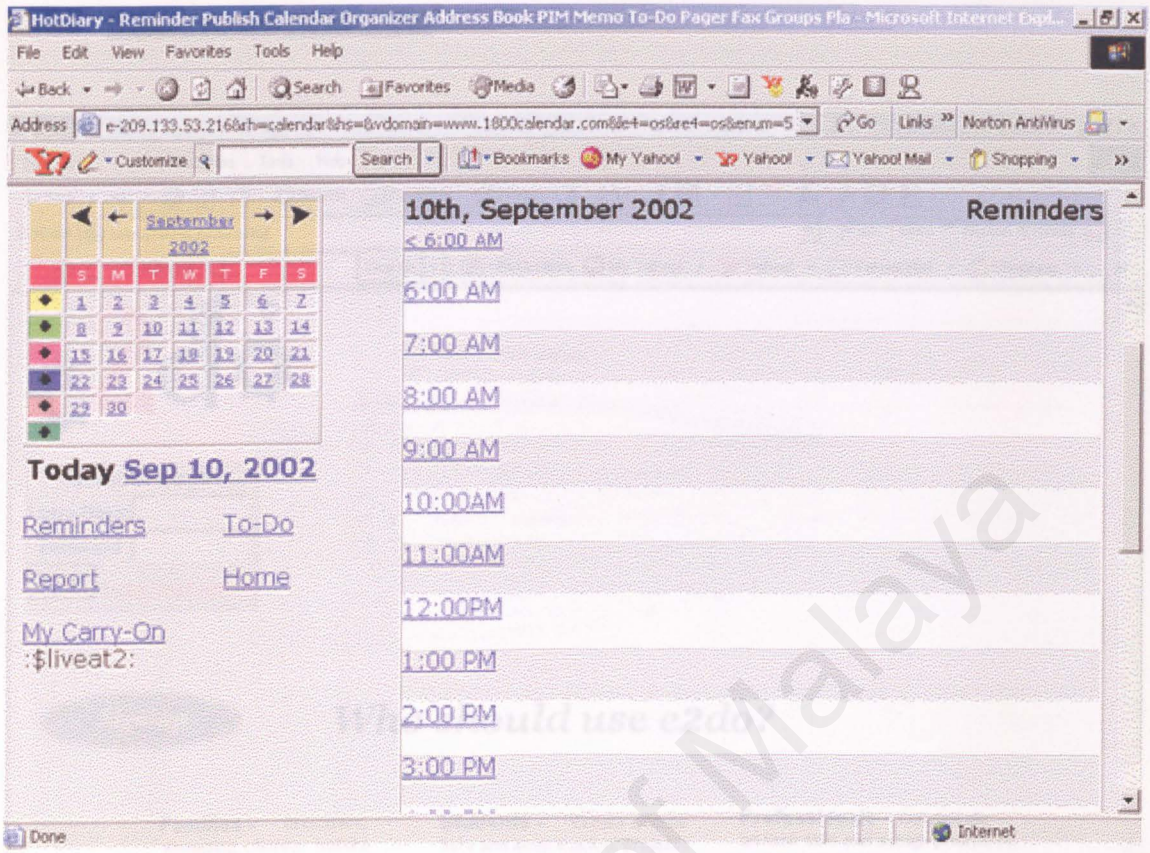

Figure 2.6 illustrates the calendar available at 1800calendar.com

From the calendar page, the user can do their tasks easily, but when it comes to updating reminders, to-do lists, report and other stuffs the user will have to go form one page to another. This is tiresome for some of the user because they have to wait for the page to load if the Internet connection is slow.

2.4.3 http://www.e2do.com

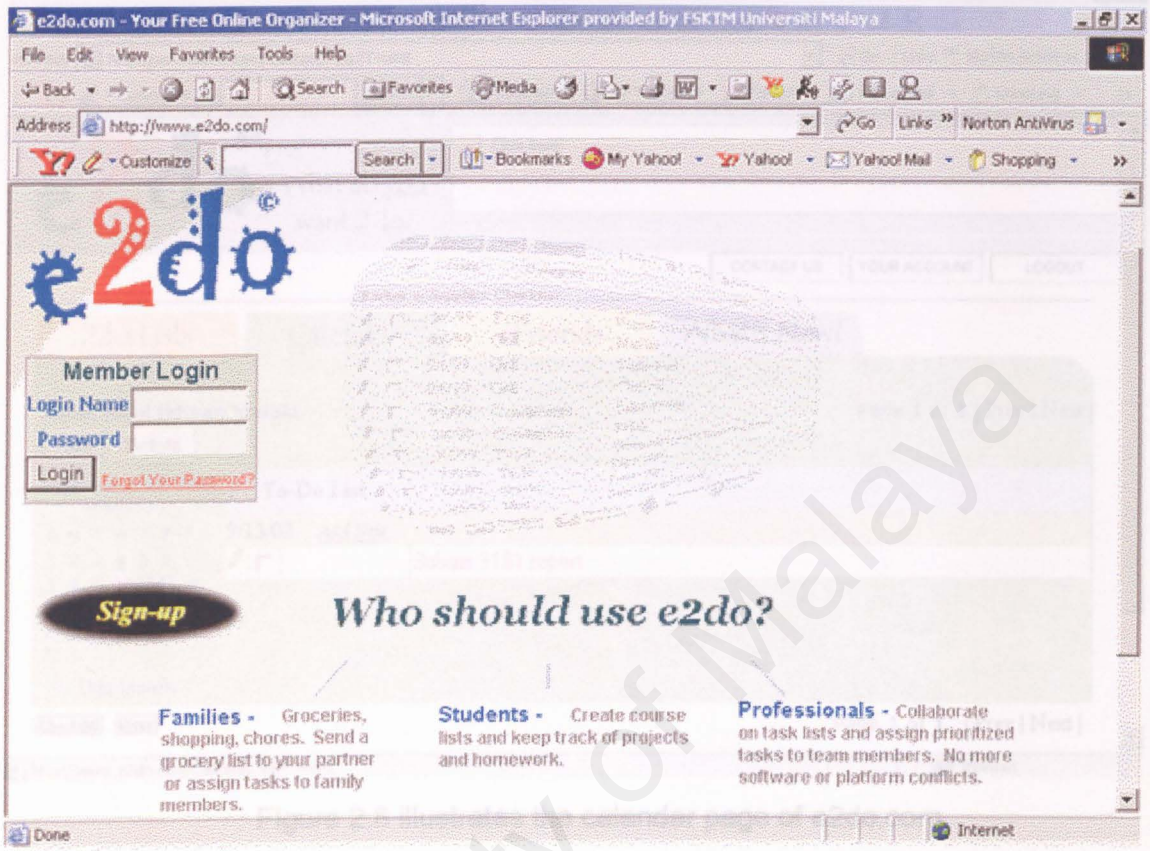

Figure 2.7 illustrates the main page of the site

From the interface it is very clear to see that texts and images are quite organized and nice. A brief explanation is list down concerning the target user-group as this will help the user understands what this site has to offer.

The calendar shown on the next page is very convenient to the user because it has the To Do Lists together with the calendar. It is much easier to the user to update their daily tasks and get to view the calendar at the same time.

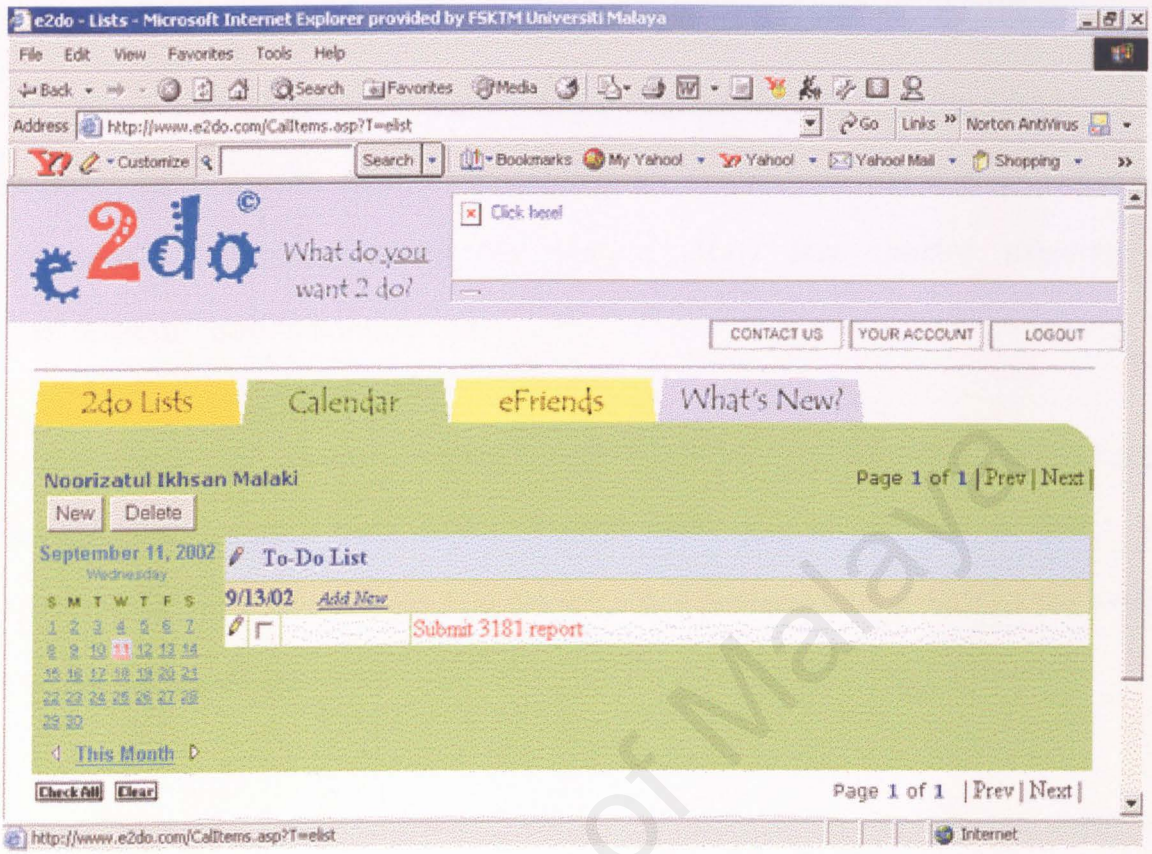

Figure 2.8 illustrates the calendar page of e2do.com

2.5 SUMMARY

Thorough research have been conducted and documented here. The results derived from this research and the data collected is used to for the preliminary investigation of the systems' analysis and requirements. This is to ensure that the system will meet the real requirements and reduce the misunderstandings on the system.

Chapter 3
METHODOLOGY

3.1 INTRODUCTION

To make sure that everything considering the development of the system is well planned, there should be a set of procedures to follow by and it is considered as necessary in building a reliable system. Thus this chapter explains the methodology used to achieve that.

The methodology used to develop a system will be most beneficial to the system developer to produce high quality product faster and at much lower cost. It is specially for improving the product development process as it simplifies the work of the system developer.

A methodology is defined as a collection of procedures, techniques, tools and documentation aids. All these procedures, techniques, tools and documentation helped in reducing the workload and simplify the work involved in producing a system.

Methodology consists of phases that in turn may consist of sub-phases. The phases will guide by the developer on what appropriate steps to take in developing a reliable and stable product. A methodology also helps the system developer to plan, manage, control and evaluate information system projects.

3.2 PROJECT MODEL

Different methodologies have different objectives. It depends on what the methodology emphasized on. Some emphasize on human aspects and some emphasize on the organizational aspects. When choosing the suitable methodology to use for the system, all these emphasize must be taken into account in order to build a successful system.

Specifically for this system, the preferable model is the V Model. It is actually an evolutionary model from the Waterfall Model, which is the commonly used model in building such system.

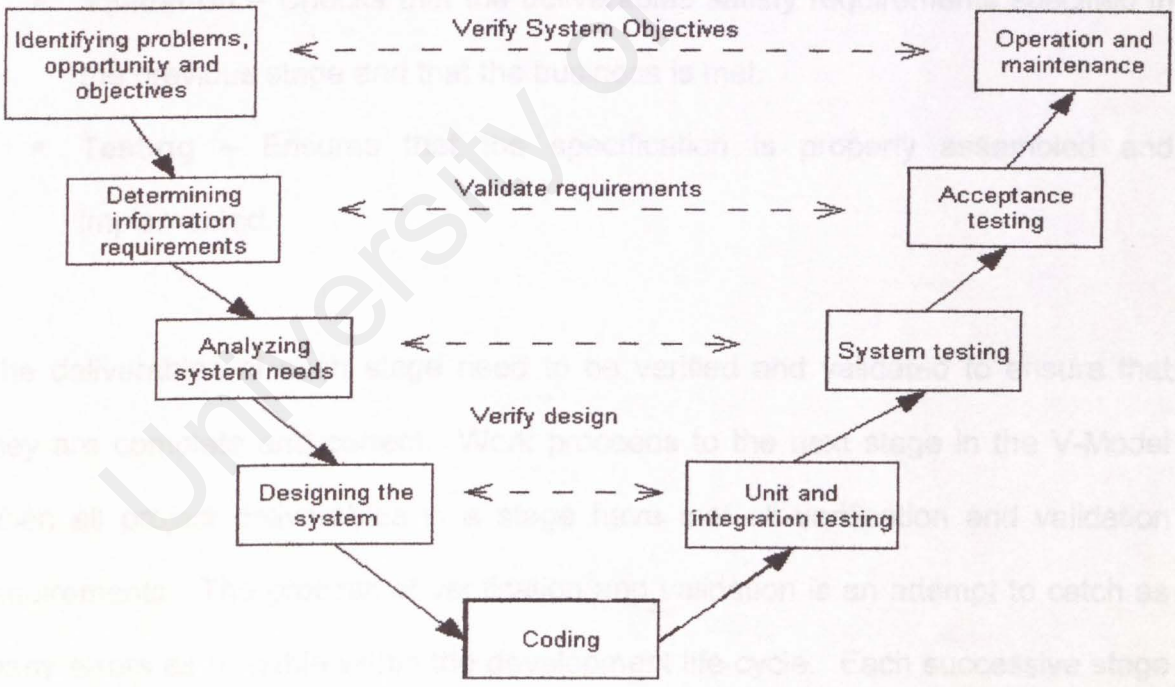

Figure 3.1 The V Model used for the project

3.3 MODEL OVERVIEW

The **V-Model** framework is a structured testing approach that can be used with any project management or system development. The framework emphasizes quality from the initial requirements stage through the final testing stage. It focuses on testing throughout the development life-cycle, early development of requirements and early detection errors. Each major deliverable in the development process is accessed, verified, validated and tested.

- **Verification** – Checks that a deliverable is complete (contains all required information)
- **Validation** – Checks that the deliverables satisfy requirements specified in the previous stage and that the business is met.
- **Testing** – Ensures that the specification is properly assembled and implemented.

The deliverables of each stage need to be verified and validated to ensure that they are complete and correct. Work proceeds to the next stage in the V-Model when all project deliverables in a stage have met all verification and validation requirements. The process of verification and validation is an attempt to catch as many errors as possible within the development life-cycle. Each successive stage of testing ensures that the specifications defined in the deliverable of the

corresponding stage have been implemented. This is achieved by the early development of requirements.

V-Model also contains information about the course the project will take. The process standard include, which output product are to be created by an activity and which successor activities need this product as input. This internal product flows allows a chronological order for the activities to be derived. This characteristic of the V-Model allows project to be controlled automatically in the sense of project workflow. It is result oriented with a lot of flexibility to control the whole development process and progress.

3.4 PHASES INVOLVED

Down here is the list of phases stated in the V Model and the process that has been conducted and will be conducted in the phases.

No	Phases	Processes
1	Identifying problems, opportunities and objectives.	-Find and collect information from research done to identify the problems, opportunities and objectives.
2	Determining information requirements.	-Find out the essential requirements needed to built such system.
3	Analyzing system needs.	-Find out the best solution for the system. -Taking into account all the features of existing systems.
4	Designing the system	-Propose a new system that will have all the new features.

		-Putting the parts together in order into a workable system. -Included the functions that the system must perform such as user interface design. -Techniques like DFD and ER-diagram is used to explain the system more clearly.
5	Coding	-Write the code in certain scripting technology, in this case the tool is ASP (Active Server Pages). -Debug the program to correct any errors found.
6	Unit and integration testing	-Integrate the sub-systems to another sub-system to be a big, huge system as a whole. -Identify and correct any errors or bugs.
7	System testing	-Define the stages of testing. -Tests each module separately making sure the interface is working properly.
8	Acceptance testing	-Do a test of acceptance. -Determine whether the end product have fulfilled the requirements that of a user.
9	Operation and maintenance	-Identify the parts of the software that needs maintenance -Do proper maintenance on the product.

Table 3.1 The phases and processes involved during development.

3.5 JUSTIFICATION OF MODEL

The reasons of the chosen model are because:

- Problems encountered during testing stages can be easily corrected by referring to the right documentation and process on the right side of the model shown.
- It is an ideal model as it stresses on system testing.
- Each of the processes on the right side complimented the processes on the left side therefore testing can be done more precisely and accordingly to those processes.
- Faults made from the early stages of the development can be detected during the testing phase that will be done thoroughly.
- All the activities and constraints placed upon the system can be seen clearly than any other model.
- Allows faster reaction to the current project situation.

Chapter 4
SYSTEM ANALYSIS

4.1 INTRODUCTION

Since the system that is going to be built is rather a new system, therefore a thorough analysis is a must in order to develop a system that will function efficiently and effectively. To do the analysis, information gathering or fact-findings are really important to capture the requirements needed as precisely as possible. Usually this is not an easy task to do. Requirements phase begins when there is recognition that a problem exists and requires a solution or when new idea arises. This phase ends when a complete description of the behavior of the system to be built is identified.

4.2 INFORMATION GATHERING

This is an important part of the system analysis process where all the data needed are collected. These are ways the find and collect data and information about the system and also to solve the problem. Sometimes, it is also called data collection. Some of the techniques used to derived information are interviews, observations, documentation review, questionnaires and research. Specifically for this project the techniques used are interviews, observations, and research.

4.2.1 INTERVIEW

First step taken in conducting the interview is to identify which group of people will be interviewed. Since this project will be developing a planner for student in the

higher education level such as university, it is decided that the most suitable group are students.

The second steps are setting the objectives of the interview. These objectives are vital as not to make the interview be out of context. The interviews are more like a question and answer session, so the questions are asked spontaneously.

4.2.1.1 BENEFITS OF INTERVIEW

Besides doing research on the topic, interview is the best solution in getting information needed. Interview allows open-end questions; therefore more information regarding the question can be obtained directly from the interviewee.

Moreover in the interview, there is no fixed question. The question can be asked according the level of understanding of the interviewee. This will make the interview session easier as question can be changed accordingly for different interviewees.

From the interview, all the non-verbal communication such as the facial and body movements can be observe. This can give more information on the real situation or impact of certain question to the interviewee.

The best part about interview session is the real needs of the main objectives of the interview can be obtained. Because of all these benefits mentioned above interview is the best solution to gather information rather than questionnaires.

4.2.2 OBSERVATION

This is another useful and effective technique. The technique allows for more information gathering than meets the eye. From the observation done some of the question like when, how, why, what and where can be answered.

In doing this project, a few things are observed. One of the observation, are done around campus to see whether planner or organizer is a vital need for students. Do these students really rely on the planner to help them get organized? How many are they around campus that really depends on a planner and carried them each day to their faculty? All these questions can easily be answered by doing the so-called observation.

Another observation done is on the planner that is available in the market right now. This observation will answer question like stated next. What are the functions available in the planner? Does the functions fulfilled students needs in general? Is it easier to use manual planner (paper-based planner) or simply just buy an electronic one or use one that is available online?

There is only one risk arose when conducting observation. There are times when some of the unusual or unexpected situations that occur only occasionally may not be able to see or missed.

4.2.2.1 BENEFITS OF OBSERVATION

From the observation done, there are a lot of advantages of doing such approach to gather information. One of the most important factors is the observation did not take one whole session as interview does. It can be done easily without much efforts, all it needs is a very sharp observance. It also provided additional perspectives about the current system. And because all the data gathered using this kind of technique are highly reliable it is the most inexpensive techniques to date.

4.2.3 RESEARCH

This is one more approach in getting the information for the system. This fact-finding includes searching through the Internet and books available on the topics of concern. Although the first choices to search for information is the Internet, using books does help and much more reliable.

Internet is the fastest way to seek information. This is so mainly because one is able to obtain a vast amount of up-to-date information from all around the world. The only down side of using the Internet to search for information is data obtained

might not be suitable or relevant to the system and sometimes is quite time-consuming. Worst cases are there will be times when the expected results could not be found and one may not necessarily get the information needed.

The data that derived from the Internet are on literature review, where websites that offer planner service are visited to take a look at the strengths and the weaknesses of each of the site.

4.3 REQUIREMENTS PROCESS

A requirement is a feature of a system or a description of something the system must do in order to achieve the objectives of the system. The requirements are essential so that it can be transformed into a good system design. Process to determine the requirements are illustrated in the figure below.

System requirements fall into two categories. Those two categories are functional requirements and non-functional requirements. Functional requirements are described as the functionality or the services that the system is expected to provide. Non-functional requirements are those, which are not directly concerned with the specific functions delivered by the system. They represents constraints place on the system.

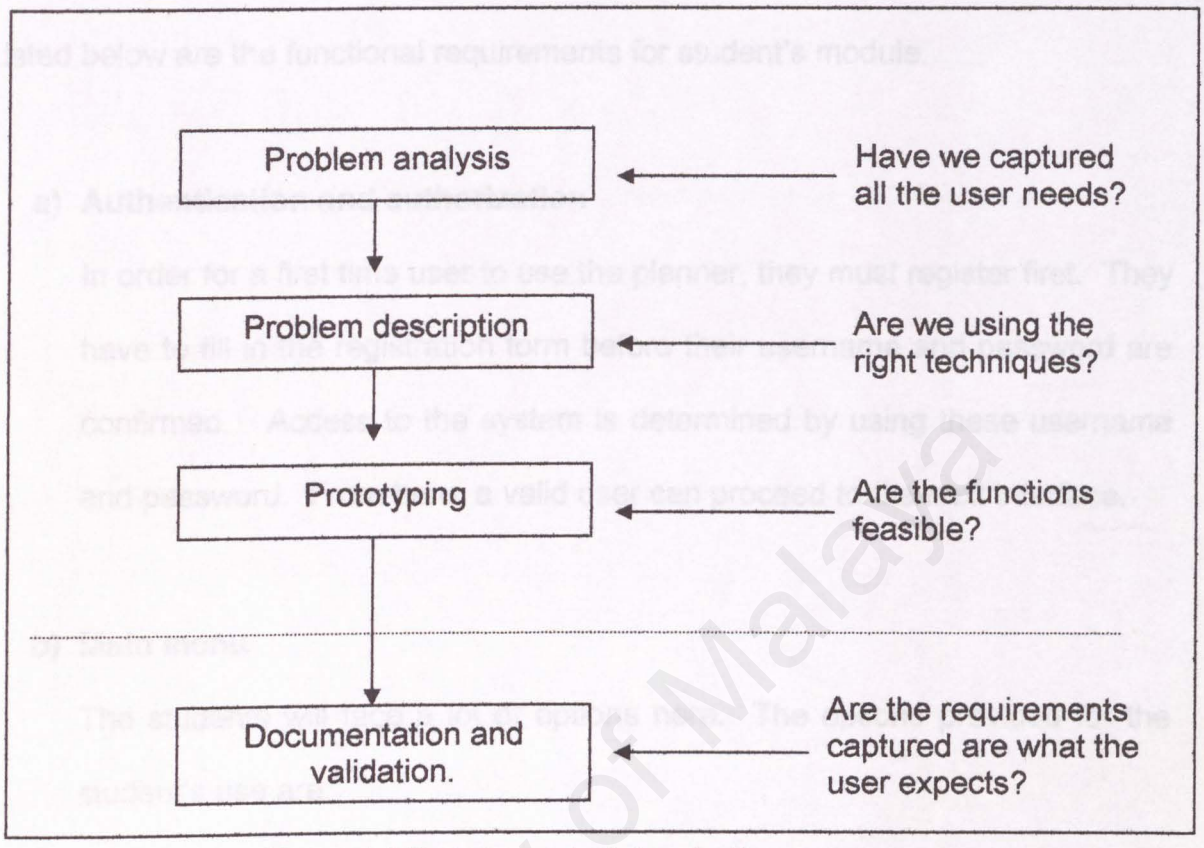

Figure 4.1 Requirements determination process

4.4 FUNCTIONAL REQUIREMENTS

The functional requirements are divided into 2 components. Theses two components are the student's components and administrator's component. The requirements are divided into two because the project consisted of two different modules. Each module act differently and have a different set of behaviors.

4.4.1 STUDENT'S MODULE

Listed below are the functional requirements for student's module.

a) Authentication and authorization

In order for a first time user to use the planner, they must register first. They have to fill in the registration form before their username and password are confirmed. Access to the system is determined by using these username and password. From here, a valid user can proceed to the next interface.

b) Main menu

The students will face a lot of options here. The options provided for the student's use are:

- **Personal Information**

  Students can view and update basic personal information.

- **Academic**

  Academic information can be keyed in and viewed here.

- **Schedule**

  Students can store and viewed all the information regarding their class, tutorials, and examinations schedule.

- **Planner**

  This is the heart of the functions where all plans and activities are keyed in and maintained here. View and updates of the data will be provided.

- **Contacts**

  Storing contact number and a brief information of the students' circle of friends, relatives, lecturers etc.

- **Feedback**

  Send any kinds of feedback to the administrator concerning all aspects of the system. They can do so by keying in the feedback form themselves.

- **Logout**

  They can signoff with only a click of a button.

c) **Confirmation of deleting data**

Data that are to be deleted by the students have to be confirmed by an error message. If the deletion is agreed, the data will be deleted permanently from the system.

d) **Printed version of the data**

Some information in the system can be printed out into a printed version. Informations involved are personal information, schedule and daily planner.

e) **View all information and data stored**

Students can view all the data that they have typed in.

f) **Modify/update data**

Once the data have been in the system, they can be modified and updated by the user.

g) Feedback

Students can give any kinds of feedback to the administrator. They can type in the feedback in their own words.

4.4.2 ADMINISTRATOR'S MODULE

This is the functional requirements of the administrator's module.

a) Administrator login

Administrator must login using the username and password in order to access the function provided only to administrator.

b) Main menu

Administrator is open to all of these options once in the main menu.

- Data maintenance
- Updating information
- Deleting information

c) Reviewing feedback

Administrator is able to view the feedback received from the user. Appropriate action can be taken once the feedback is read.

d) View the information displayed

All the information displayed on the website can be viewed by the administrator.

4.5 NON-FUNCTIONAL REQUIREMENTS

No	Non-functional requirements	Description
1	Security	Emphasis will be placed when dealing with personal and confidential information. The system will ensure that all the sensitive information is to be handed in a safe and secure environment. Additionally, different users will gain access to the system according to their respective status whether as an administrator or a user. Each user status will be treated differently by the system.
2	Reliability	The system will run at all times. It is decided that way because user will be accessing 24 hours a day, seven days a week. Accuracy is a top priority as to prevent problems and system failures.
3	Integrity	Authorization is given only to valid users that have registered with the system. Validation is ensured using username and a matching password.
4	User-friendliness	Attractiveness and interaction with the users of the system are emphasized to a great extend. The user interface will be kept in a nice manner and simple using multimedia elements.
5	Response time	Loading time is minimized as not to keep the user waiting. There is going to be a reasonable interval time taken during information retrieval and updating to and from the database.

Table 4.1 The non-functional requirement.

4.6 SYSTEM TECHNICAL SPECIFICATION

Listed down here are the requirements for technical components needed in developing and browsing the system from the client and server side.

4.6.1 SERVER REQUIREMENTS

Server Harware Components

Hardware Components	Requirements
Processor	Intel Pentium III 450 MHz / AMD 450 MHz processor or above
Memory	128 Mb of RAM or higher
Hard Disk Space	Minimum of 6GB of hard disk space
Other Computer Devices	Compatible Sound Card, Graphic Card with 3D accelerator, Network Interface Card

Table 4.2 The requirements for the server hardware components

Server Software Requirements

Software Components	Requirements
Platform	Windows NT Server 4.0
Web Server	Microsoft Personal Web Server ver.4
Database Server Application	Microsoft Access
Server Scripting Technology Connector	Microsoft Active Server Pages (ASP)
Scripting/Programming Language	VbScript (Visual Basic Scripting), JavaScript
Web Browser	Microsoft Internet 4.0/Netscape Navigator 6.0/Neoplanet ver 5.5

Web Page Development and Publishing Environment	Macromedia Dreamweaver MX
Image Design	Macromedia Fireworks 4.0 Xara Webstyle 2
Interactivity Design	Macromedia Flash 5.0

Table 4.3 The requirements for the server software components

4.6.2 CLIENT REQUIREMENTS

Client Hardware Requirements

Hardware Components	Requirements
Processor	Intel Pentium II/AMD 200Mhz minmum
Memory	64 MB RAM
Other Related Devices	Compatible Graphic Card with 3D accelerator, Compatible Sound Card, 56K Modem/ compatible Network Interface Card, Macromedia Plugins

Table 4.4 The requirements for the client hardware components

Client Software Requirements

Software Components	Requirements
Platform	Windows 95/98/2000/NT or Workstation/ME
Internet Browser	Internet Explorer ver 4.0. Netscape ver. 6.0, other compatible browsers.

Table 4.5 The requirements for the client software components

4.7 CONCLUSION

The analysis done presents a much more complete and precise description of the functionality and constraint placed upon the system. It also provides a clear view on the requirements as to prevent further misunderstanding and misinterpretation of the whole system.

Chapter 5
SYSTEM DESIGN

5.1 INTRODUCTION

The design phase builds on the knowledge obtained from the analysis phase. In other words, it uses the requirements to design the system that will meet the user's needs. Design focuses on both on the logical and physical or technical aspects of the system.

Using the information obtained form the previous phase, designing the new system based on the information are hoped to solve problems or meet the current or future needs. The design phase will put the various parts into viable, working system.

The design will specify how the various functions will be integrated as well as the input and output design.

The techniques use to design the system are DFD and ERD.

5.2 SYSTEM DESIGN

The approach used to design the system is decomposition approach. It is a structured system approach. It uses top-down approach that decomposes a system into a hierarchy of modules such that the higher-level modules describe the system in general terms while the lower level modules describe the system in more

specific terms. Using this type of approach, the system development begins from high-level description and then moves down to a low-level description.

The system has two different modules namely Administrator's Module and Student's Module. The designed modules are illustrated in the figure below.

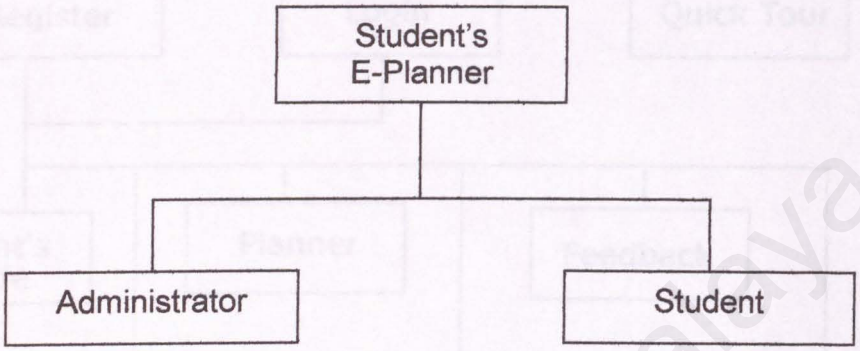

Figure 5.1 Two main modules of the system

The figure shown above will be broken down into more modules as illustrated in figures below.

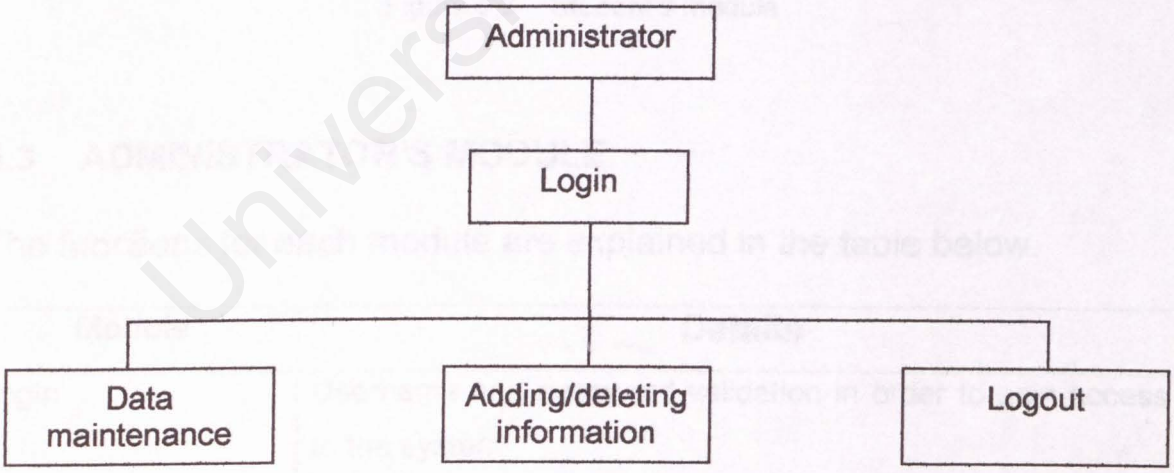

Figure 5.2 The administrator's module

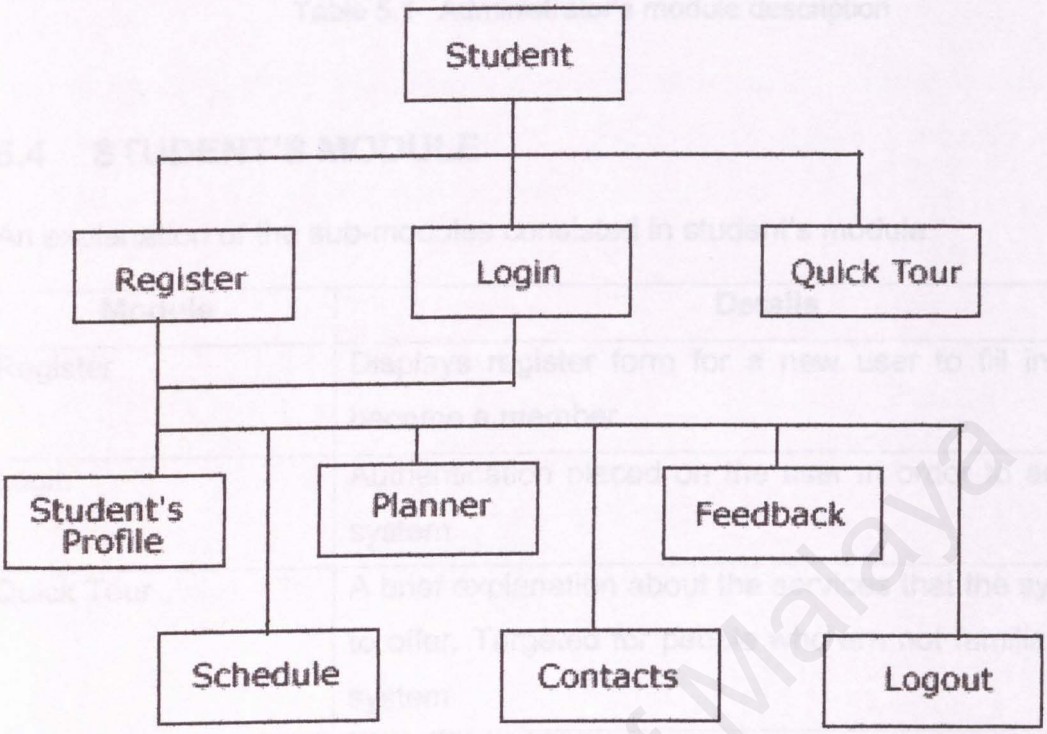

Figure 5.3 Student's module

5.3 ADMINISTRATOR'S MODULE

The functions for each module are explained in the table below.

Module	Details
Login	Username and password validation in order to gain access to the system.
Data maintenance	Checking the information displayed on the website.
Adding/deleting information	Updating the information in the website

Logout	Logging out of the system

Table 5.1 Administrator's module description

5.4 STUDENT'S MODULE

An explanation of the sub-modules consisted in student's module.

Module	Details
Register	Displays register form for a new user to fill in order to become a member.
Login	Authentication placed on the user in order to access the system.
Quick Tour	A brief explanation about the services that the system has to offer. Targeted for people who are not familiar with the system.
Student's Profile	Update and view the personal information.
Schedule	Store, update and view the information concerning the schedule for classes, tutorials and even examinations.
Planner	Displays the calendar of each month. Allows update and view daily tasks.
Contacts	View and store information about contacts. Contacts may be friends, family members etc.
Feedback	Send feedback about the system directly to the administrator.
Logout	Logout from the system in a click.

Table 5.2 Student's module description

5.5 SYSTEMS FLOW CHART

As mentioned earlier, the design of the system can be expressed using Entity-Relationship diagram (E-R Diagram). This diagram shows the entity involved in the system and the relationship between each of them.

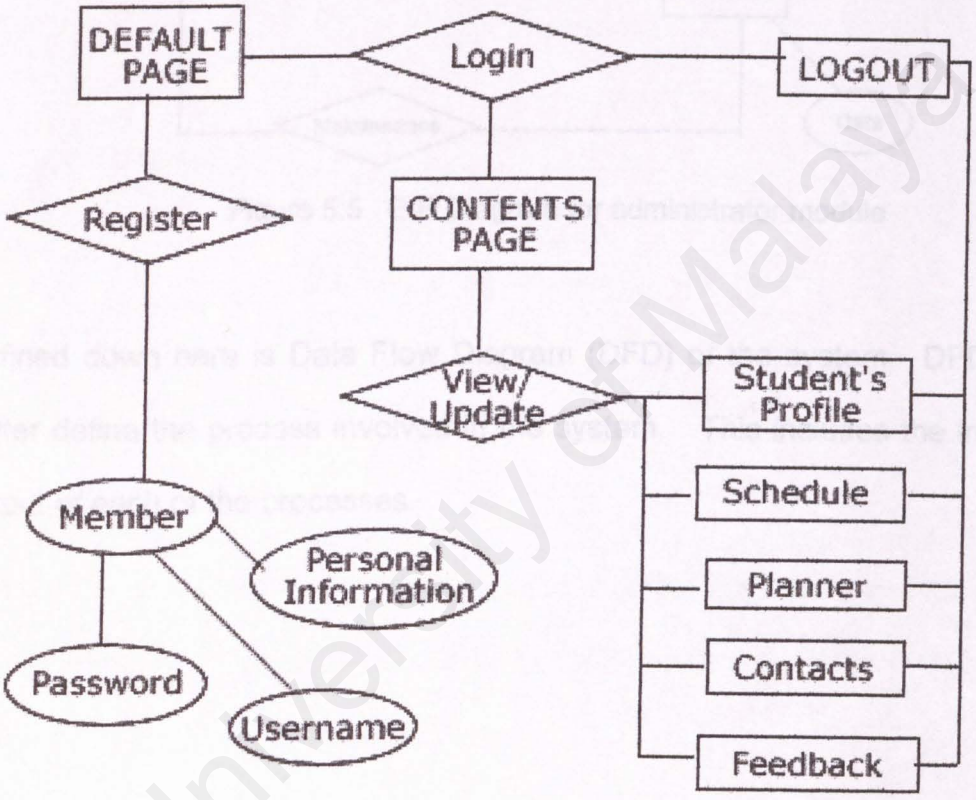

Figure 5.4 E-R Diagram for student's module

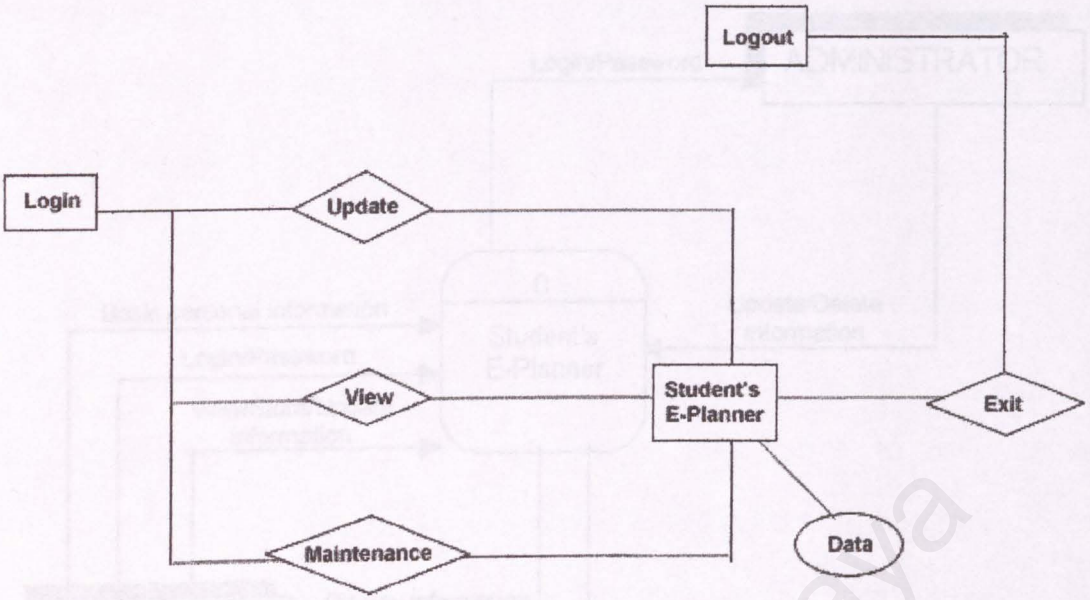

Figure 5.5 E-R Diagram for administrator module

Defined down here is Data Flow Diagram (DFD) of the system. DFD is used to better define the process involved in the system. This includes the input and the output of each of the processes.

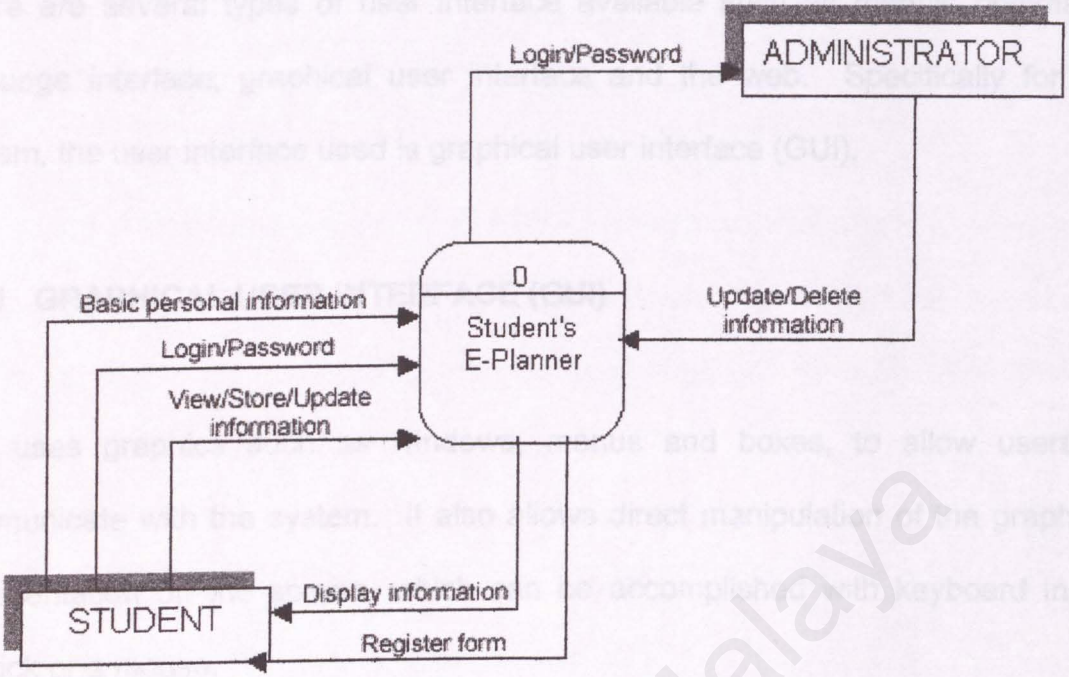

Figure 5.6 Context level of the system

5.6 INTERFACE DESIGN

The goal of designing the interface is to provide the best way for people to interact with computers. Interface is becoming more important because it gives an impact on the overall system performance.

A well-designed interface enables the user to use the system more quickly without much hassle and complication. This is so mainly because people don't want to spend time learning new tools. They simply want an easy to use and understand system instead of the complicated ones.

There are several types of user interface available such as menus, command-language interface, graphical user interface and the web. Specifically for this system, the user interface used is graphical user interface (GUI).

5.6.1 GRAPHICAL USER INTERFACE (GUI)

GUI uses graphics such as windows, menus and boxes, to allow users to communicate with the system. It also allows direct manipulation of the graphical representation on the screen, which can be accomplished with keyboard input, joystick or a mouse.

5.6.2 WHY GUI

Probably one of the main reasons of using GUI is because it is so popular and many website now have uses and adopted this technology in designing interfaces. Besides the popularity, it is actually so easy to create one if you are really familiar with the tools used.

Moreover, there are a lot of tools available in the market nowadays for creating graphics. It is just a matter of choosing one that is best suits the needs.

By using the GUI, user can distinguish the difference from one web-based system to another because of the difference in the GUI designed.

5.6.3 THE USER INTERFACE

Some of the interfaces designed to meet the requirements of the system. The interface designed has been ensured to be consistent as to provide the ease of use to the user. All the interfaces are prior to change and have not been finalized yet.

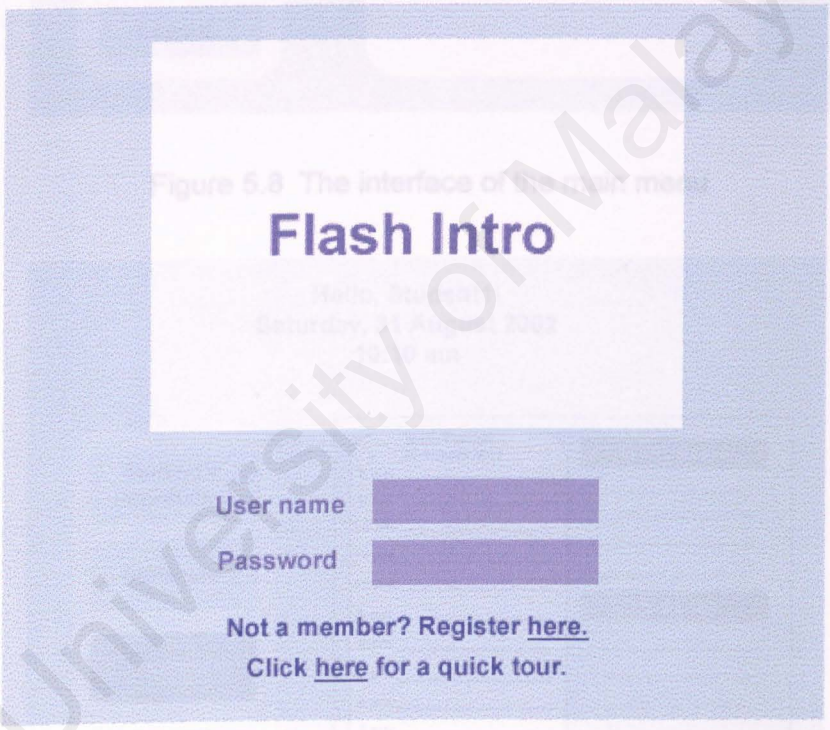

Figure 5.7 The introduction page of Student's E-Planner

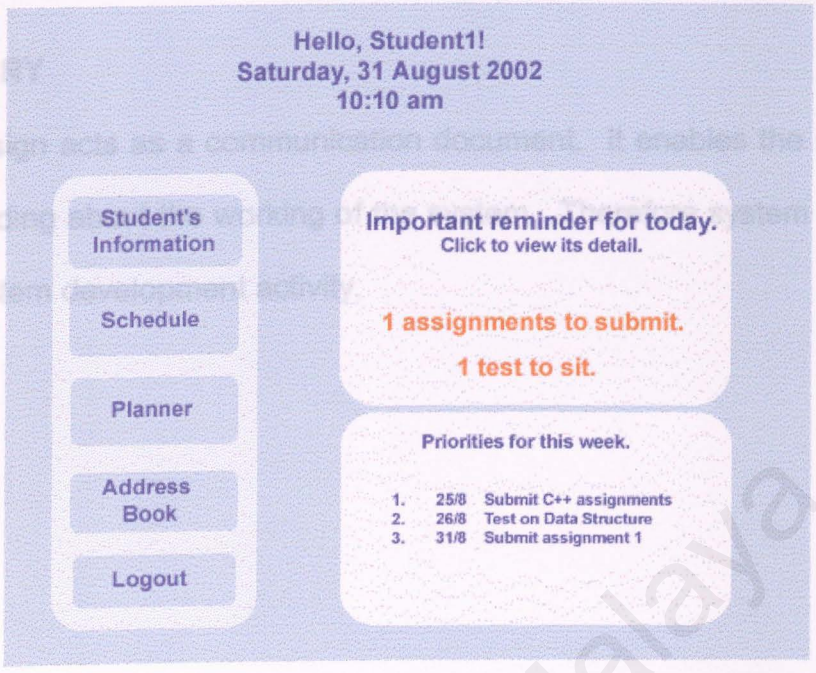

Figure 5.8 The interface of the main menu

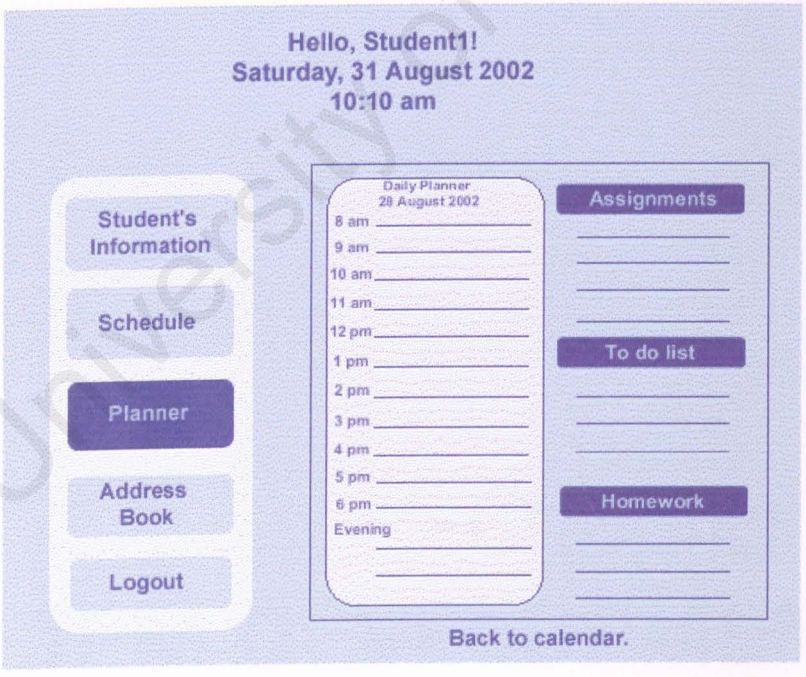

Figure 5.9 The layout of the daily planner

5.7 SUMMARY

A system design acts as a communication document. It enables the user to build an understanding about the working of the system. Therefore system design is an important system development activity.

Chapter 6
SYSTEM DEVELOPMENT & IMPLEMENTATION

6.1 INTRODUCTION

System development is where the actual plans and designs are brought to life, making the solutions now visible to the front-end user. Development is where the construction of a system begins to take place. This phase defined how the initial and revised process designs are put into real work such as writing the codes and creating the interface. It is the most crucial point of technical translation and meeting the targeted requirements.

6.2 DEVELOPMENT ENVIRONMENT

Student's E-Planner consists of two components; students and administrator. Each component relies on each other for information and data retrieval.

6.2.1 THE DATABASE

The development of this system begins with the database, considered as the major element in Student's E-Planner. The database, is the core of all of the components. The database is considered as the platform of these components for input and output. The database design emphasizes on this purpose:

- Purposeful Information Retrieval
- Efficient Data Storage
- Data Availability
- Efficient Updating and Retrieval of data

The database was developed using Microsoft Access because of the simplicity to built a relational database model compared to other database development softwares. Microsoft Access was much more user-friendlier, easier to use and manipulating data become a snitch.

As all information for Student's E-Planner comes from this database, it was considered highly recommended to built the interaction betweeen Student and Administator component in Microsoft Access itself to reduce failure in initializing database connections and retrieval of recordsets. From here, the distinction of each table becomes much more prominent and easily differentiated especially in a relational database. As relational database is comprised of tables that are uniquely name; data that are stored is much easier to retrieved and the information kept is much easier to maintained. Each of these tables is made up of records (referred to as rows) and fields (also called columns). Relational database uses the value of the data stored in the tables themselves to determine what is retrieved.

Databases are not merely a collection of files. Instead, it is a central source of data meant to be shared by many users for a veriety of applications. The heart of the database is the DBMS (database management system), which allows the creation, modification, and updating of the database; the retrieval of data; and the generation of reports. Most of the tables contained in Student's E-Planner are

joined together by One- to- Many relationships. The tables used are listed in the illustration below.

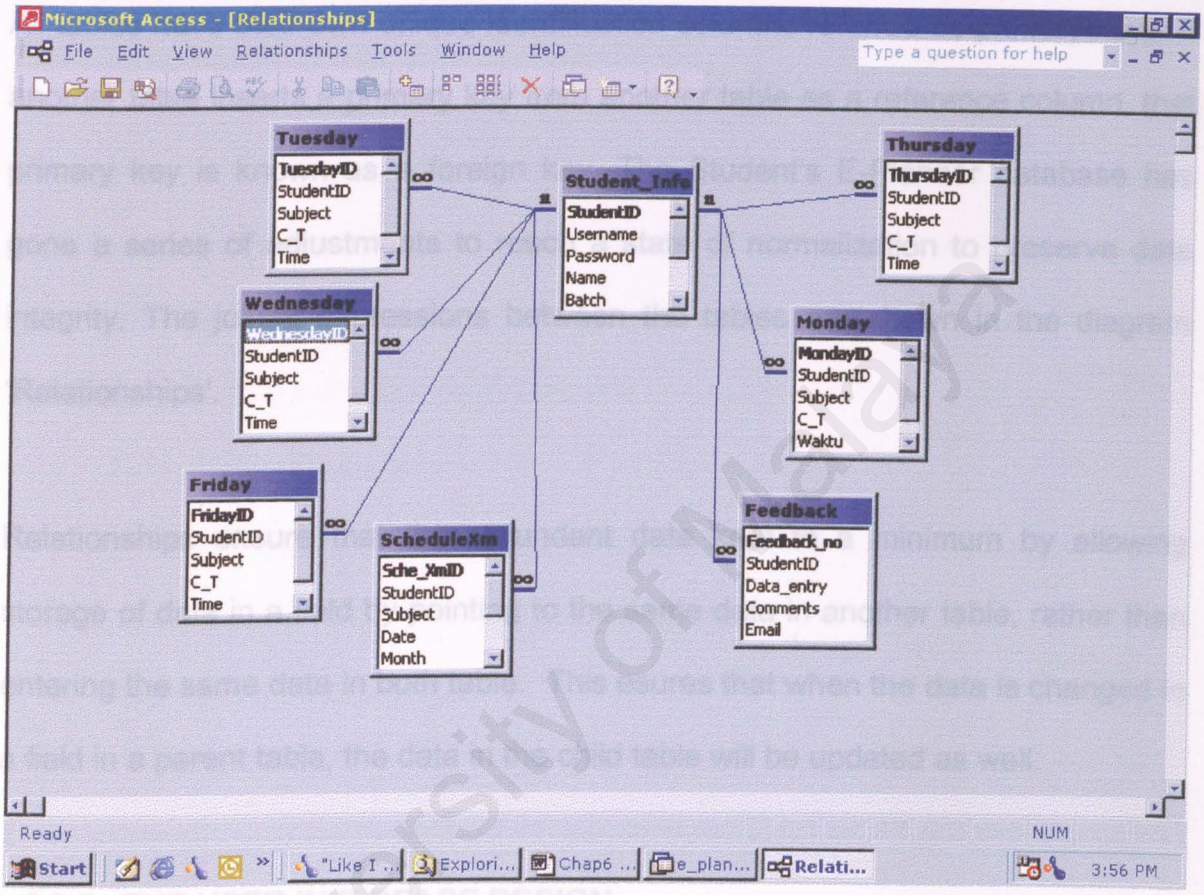

Figure 6.1 illustrates the relationships between all data in the database.

The effectiveness objectives of the this database include:

- Ensuring that data can be shared among users. (Students and administrator)
- Maintaining data that are both accurate and consistent
- Allowing the database to evolve as the needs of the users grow

- Allowing users to construct their personal view of the data without the concern for the way the data are physically stored.

All tables have their own unique identification columns referred as primary keys. If another table inserts a primary key from another table as a reference column, that primary key is known as a foreign key. The Student's E-Planner database has gone a series of adjustments to reach a state of normalization to preserve data integrity. The joined expressions between the tables are shown in the diagram 'Relationships'.

Relationships ensure that the redundant data kept to a minimum by allowing storage of data in a field by pointing to the same data in another table, rather than entering the same data in both table. This esures that when the data is changed in a field in a parent table, the data in the child table will be updated as well.

6.2.2 THE USER INTERFACE DESIGN

A lot of emphasis has been done to develop the interface of the system. Much care and design preparation was put into account to strive for these objectives:

- Effectiveness as achieved through the design of interfaces that allow users to access the system in a way that is congruent with their individual needs.
- Efficiency as demonstrated through interfaces that both increase the speed of data entry and reduce errors.

- User consideration as demonstrated in the design of suitable interfaces.

6.2.2.1 THE STUDENT COMPONENT

The online system of Student's E-Planner is the most important interface of all the interactions. A few guidelines are kept in mind for effective interface design. These are presented in order to aid the attainment of the overall input and output design goals of effectiveness, accuracy, ease of use, simplicity, consistency and attractiveness. The four main guidelines are:

- To keep the screen simple
- To keep the screen presentation consistent throughout all the pages
- To facilitate user's movement among pages
- Create an attractive pages

Student's E-Planner was developed using Macromedia products, which is one of the leading company in interface design development and graphic software for years. The chosen development tool, Macromedia Dreamweaver MX won over the other web development tools such as Microsoft Visual Interdev because Dreamweaver MX provides much more powerful tool-editing features that accelerates graphics and HTML editing using What You See Is What You Get (WYSWY) workspace. But the best feature yet is its capability to quickly connect existing, static web pages to any database and Web pages in logical and visual manner. Its high compatibility with Microsoft Access influenced the major decision

to use Dreamweaver MX. With its easy adaptive nature with associative Macromedia Products such as Macromedia Fireworks and Flash, inserting animations was an easy task.

Shades of the colour scheme used in Student's E-Planner are mostly blues with a little bit of yellow and white purposedly to be *easy* to the eyes of the users. Futhermore the color portrait a sense of calm to avoid user irritancy. The final results for the online interface designs are illustrated below:

6.2.2.2 THE ADMINISTRATOR COMPONENT

The development of this component mostly revolve around building forms. The forms was designed using the same shades of blues. The four guidelines mainly used for the form design are :

- To make the forms easy to fill out
- Ensure that the forms meet the purpose for which they are designed.
- Keep forms attractive, simple and straightforward.

The following are the few illustrations of the interface of the components:

6.2.3 BEHIND THE INTERFACE: CODING

Making sure that data are entered and displayed in and out of the system accurately is of the utmost importance. It is by now axiomatic that the quality of data input determines the quality of information output. From here, the main objectives to be fulfilled are effective coding, effective and efficient data capture and entry through validation.

The purpose for coding in Student's E-Planner are :

- Keeping track of information management
- Classifying information
- Concealing information
- Revealing information
- Requesting appropriate action and data processing

To develop the online system, as proposed, the server technology chosen was ASP (Active Server Pages) to create dynamic web pages. The scripting language used was both VbScript and JavaScript. The initial scripting language was VbScript. JavaScript was coded for functionalities that was limited by VbScript. Dreamweaver MX was chosen because of its capabilities to generate basic ASP codes without actually hard-coding the codes by hand. Below are the features that convinced the development of Student's E-Planner:

- **Total control over source code**

  The New Split View lets you see both Code and Design Views

- **Easy to identify keywords and scripts in code**

  The new integrated text editor includes ASP, JSP, CFML, JavaScript, and HTML keyword color-coding, auto-indenting, and line numbers

- **Effortlessly add user authentication Server Behaviors**

  Add password protection to sites without writing complex server-side code – simply validate user names and passwords against a database to password protect site pages.

- **Easy to connect to database on Web server**

  With Remote Database Connectivity, there's no need to set up ODBC or JDBC drivers on your development machine. Dreamweaver MX uses the application server to connect directly to your database.

- **Design complex pages easily**

  The new Layout View lets you draw cells directly on the page, drag cells, or group cells to create nested tables. Whether you're working with existing tables or creating a new layout, Layout View always creates clean tables that work in all browsers.

- **Track site media in a central location**

  Use the new Asset Panel to preview and manage all assets such as color codes, images and files.

The codes chosen to be documented in this section are the scripts that are personally hard-coded. One such hard-coded scripts is session ID. Session ID is actually a virtual variable that is generated everytime a user logged into a system or browse a Web site. The need for a session ID is extremely crucial to the system as they can be used to store anything, and their value is specific to a particular user's session. Furthermore, a session ID is a unique identifier for a user's session as it is used to trigger the server to remember the information about that user. The best thing about this variable is that it typically expire after the user quits the browser or logged out of the system. To create a session ID in Dreamweaver MX, one must create them in the source code. This is because, Dreamweaver MX doesn't have the capability to automate the creation of a session ID. Below are the codes used to generate the session ID. This piece of code is inserted in the default page where the login process takes place.

```
<% Session("MM_Username") = Request.Form("Username") %>
<% Session("MM_Password") = Request.Form("Password") %>
```

The code above declared that a session ID will be created for the user that matched the given username and password during login process. After a successful login, the user will be directed to Contents.asp page. This page is like a greeting page where all the menus available are ready to be used by the user. A piece of code is inserted before the <html> tag of the page as to create the session ID that will be used in that page and on the rest of the pages in the system.

```
<%Session("sStudentID") = rsStudent_Info.Fields.Item("StudentID").value
 Session("sUsername") = rsStudent_Info.Fields.Item("Username").value
```

```
Session("sPassword") = rsStudent_Info.Fields.Item("Password").value
Session("sName") = rsStudent_Info.Fields.Item("Name").value
session("sBatch") = rsStudent_Info.Fields.Item("Batch").value
session("sMajor") = rsStudent_Info.Fields.Item("Major").value
session("sIC_No") = rsStudent_Info.Fields.Item("IC_No").value
session("sAddress") = rsStudent_Info.Fields.Item("Address").value
session("sMatrix_No") = rsStudent_Info.Fields.Item("Matrix_No").value
%>
```

6.3 SUMMARY

The development process is considered the most complicated phase of all. It is where careful planning, requirements and designing are blended together to represent the solutions to the problems. From this phase, the testing and maintaining system becomes crucial for the Student's E-Planner readjustments.

Chapter 7
TESTING & MAINTAINING THE SYSTEM

7.1 INTRODUCTION

Testing is done throughout Student's E-Planner development, not after the system is fully developed. It is meant to turn up heretofore-unknown problems, not to demonstrate the perfections of programs, manuals and equipment. Testing is somehow tedious but it plays an essential series of steps that helps assure the quality of the eventual system. It is far less disruptive to test beforehand than to have a poorly tested system fail after installation. Testing is emphasized in the V-model project model proposed during the determining the requirements of Student's E-Planner.

7.2 OVERVIEW OF TESTING

The testing of Student's E-planner involves several stages. First, each program component is tested on its own, isolated from the other components in the system. To fulfill this needs, unit testing is done in a controlled environment whenever possible, so it can feed a predetermined set of data to the component being tested and observe what output and data are produced.

When each collection of components have been unit tested, the next step is ensuring that the interfaces are defined properly. Integration testing verified that the system components work together as described in the system and program design specifications.

Once information is passed among components is accordance with the design, another test are done to the system to assure that it has a desired functionality. That test is called function test that evaluates the system to determine if the functions described by the requirements specification are actually performed by the integrated system. The result is a functioning system.

Recall that the requirements were documented in two-ways: first in the user's terminology and again as a set of software and hardware requirements I could use. The function test compares the system with the remainder of these software and hardware requirements. When the test is performed successfully in user's working environment, it yields a validated system.

When the performance test is complete, the system functions according to the understanding of the Student's E-Planner description and requirements.

An acceptance test are done where the system was checked against the user's requirements description. Upon completion, the accepted testing is installed in the environment in which it will be used; a final installation test is run to make sure that the system is still function like it should.

7.3 UNIT TESTING

This test focuses on making sure the individual components and interactions between those components have succeeded to function according to plan. The types of unit testing done on the system are as follows:

- **Database Connectivity**

  As part of the most important element in the system, it is essential to test the database connection for retrieval and input from database to web page and vice versa. From here, if the connections are successful, then the data displayed and retrieved from the database are dynamic.

- **Value Passing**

  Where database is concerned, value or parameter passing is no exception. When desired data is retrieved, a unique value or parameter must be passed to display the accurate and appropriate information. To prove the test is successful, the student ID is passed into the Student's E-Planner system. From the value passed, all related data is displayed thus proving that the value passed is legit.

7.4 INTEGRATION TESTING

When all individual components are working correctly and have met the individual objectives, all units are integrated to become a working system. This integration is planned and coordinated so that when a failure occurs, there is an idea of problems and failures. The Bottom-up integration strategy is used to check why and how components are combined to test the intergrated system. The system is viewed as a hierarchy of components, where each component belongs to a layer of the design.

Using the bottom-up-testing, each component at the lowest level of the system hierarchy is tested individually first. Then, the next components to be tested are those that call the previously tested ones. This approach is followed repeatedly until all components are included in the testing.

When this level of testing is complete, the two components of Student's E-planner are joined together to form one whole working system and that it should be running perfectly together.

7.5 FUNCTION TEST

Function testing is based on the system's functional requirements. Each function can be associated with those system components that accomplish it. Function testing is performed in a carefully controlled situation. Moreover, since function

testing is done one at a time, testing function can actually begin before the entire system is constructed, when it is needed. The testing compares the system's actual performance with its requirements, so the test cases for function testing are based from the requirements document.

7.6 PERFORMANCE MANAGEMENT

The functional testing addresses the functional requirements, and performance testing addresses the nonfunctional requirements.

System performances against the performance objectives are set by the users (surveyed before the system was proposed). So in this case, the non-functional requirements that are looked upon are:

- Security
- Reliability
- Integrity
- Efficiency
- Effectiveness
- User-friendliness
- Response Time
- Accessibility
- Simplicity

From the test done, it shows that the system has fulfill all these non-functional requirements above.

7.7 ACCEPTANCE AND INSTALLATION TESTING

The final stage of the testing phase are the most important part in testing before Student's E-Planner is accepted for operational use. This period is important for accessing how end users actually interact with the system. Although much thought is given to the user-system interaction, but there is no absolute prediction of the wide range of difference in the way users will actually interact with Student's E-Planner. This must be observed firsthand. The usability testing is done by real end-users. The testers were:

1. Salwa Faharudin
2. Noorfadilah Malaki
3. Eza Surya Mohd Arip
4. Netty Neanah Kassim

Their comments and interactions were put to account and modifications were done by adjusting according to their given ideas and criticism. The installation testing was carried out at different workstations to identify the real software and hardware requirements. Workstations that were used were personal computers owned by Salwa Faharudin, Noorfadilah Malaki, Eza Surya Mohd Arip and Netty Neanah Kassim.

7.8 SUMMARY

Generally, the testing phase is done to reassure the system operation flow meets the requirements. From here, it is concluded, after several level of testing, Student's E-Planner was found successfully operational. From the views given by the testers, the criticism were mainly positive and their reviews were focused towards user-friendliness, attractiveness, simplicity and original. The main objectives were accomplished and as a whole the development of Student's E-Planner was successful. The next and final phase is Implementing And Evaluating The System.

Chapter 8
IMPLEMENTING & EVALUATING THE SYSTEM

8.1 INTRODUCTION

This chapter describes the process of assuring that the information system is operational and then allowing users to take over its operation for use and evaluation is called implementation. Evaluation is called for after the system implementation. The evaluation process is where the whole project is analyzed from the implementation process until the presentation of the final product. It is during this phase, comparison of the prior objectives is reviewed again to check if all requirements are really fulfilled.

8.2 SYSTEM STRENGTHS

- **Complete Schedule**

  Student's E-Planner provides students the freedom to create two different schedules. Those two schedules are meant for classes and tutorials and the other one is specifically meant for examination dates. By having these two schedules the students can manage their time better when it comes to their classes and tutorials and also during critical and stressful exam period.

- **Useful planner**

  The add message page within the calendar is laid out as such to make it easier for the student to key in their tasks and activities for a particular

day accoding to the time of the day. The messages post here can be easily deleted too.

- **User-friendliness**

  Student's E-Planner strives for simplicity and consistency. The instructions related are direct and easy to comprehend by any level of user from the ages 15 and above. Links and rollover buttons are provided for navigation purposes and the avoidance to trap the user.

- **Quick tour of the system**

  The tour provides the student with a brief explanation about the system. It will guide an unfimiliar user about what the system has to offer and what is in store for them once they become a member. The fact that the tour is built using Macromedia Flash just added more interactivity to Student's E-Planner as a whole.

8.3 SYSTEM LIMITATIONS AND FUTURE ENHANCEMENTS

Student's E-Planner is hope to bring a new perspectives in bringing a planner that suits the students needs. But like any other application development, it has its own drawbacks and limitations. Down here is the list of system limitations and future enhancements.

Limitations	Future enhancements
No help facilities	Provides a help facilities on every page that focuses on the content of that page particularly.
No printed version of the schedule	Provides a way for the student to print out only their schedule instead of checking it out online.
Not focusing on items that is essential for students	The planner should allows entry that focuses on items like assignments, tests and homework. This will helps the students to do a search according to these items for an easy viewing.
Less interactivity	More interactivity can be added such as inserting sound for each button clicked.

Table 8.1 The system limitations and future enhancements for Student's E-Planner.

8.4 PROBLEMS ENCOUNTERED AND THE SOLUTIONS

In developing this system from the beginning to the end, there are a lot of problems encountered. Most of the problems arose from the technical aspects of the system.

Looking at the technical aspects, working with ASP in a database development environment was a big challenge all by itself. A better understanding on ASP will truly brings out the best in a sense of developing a dynamic application.

Manipulating data using ASP was simplified with the use of Macromedia Dreamweaver MX that consists many improved features and capabilities. It reduced the burden and saved time of hard-coding the program. The lack of experience and knowledge in this area of development became a constraint and due to the time limit, Student's E-Planner was developed with very basic functionalities.

Designing the interface was also a real challenge. To get the appropriate graphics, the right shade of colours and fonts were actually time consuming and took up a lot of development time. Much patient and careful planning were put in getting the right blend of graphics and colors to represent the fully developed system to the end user.

8.5 KNOWLEDGE AND EXPERIENCE GAINED

Throughout this project, I learned the true meaning of perseverance, a lot of patience and satisfaction to build a system from the ground –up. With non-existence of experience in web-developing or ASP scripting, this project have helped me realized the flow of an effective information system, to understand design concepts and creating graphical interfaces. It also gave me a chance to sharpen my skills in system development and fully grasp the concept of combining

variety elements of Information Technology into a fully workable and funtional system.

Student's E-Planner has introduced me to many available and powerful web development softwares and allowed me to experiment all kinds of softwares available in the market. From here, it help me improvised and combined different sets of development frameworks to conquer any problem presented. So what I can say, is that by doing this course, I realized that it is the most suitable project to enhance all of my abilities, capabilities and knowledge to the full extent.

One last that I realized is that creating something that portraits simplicity is the most difficult part of all.

CONCLUSION

PROJECT CONCLUSION

Like any existing system, Student's E-Planner is developed to reach certain goals that will be expected to reach user's needs. It is anticipated that the resulting system will provide for high integrated processes and services that cross many internal functions and reach out directly to the users of Student's E-Planner. It is anticipated that this project will result more than one of the objectives stated in **Chapter 1 : Introduction.**

The development has been based upon the analysis conducted through research, interviews and the requirements that are identified from this analysis. All research and findings have been documented systematically in this report. It is a fact that, information systems needs to provide a richness of important related data and have sequential functions that will benefit the users. With the gathered data and information from **Chapter 2 – Literature Review, Chapter 3 – Methodology**, the system's requirements were identified and reported in **Chapter 4 – System Analysis**.

A pictorial visualization of Student's E-Planner was designed in **Chapter 5 – System Design** using data flow diagrams and flow charts representation. Brief descriptions were included to give readers the general picture of inputs and outputs through function processes that were identified. System design, which is the core of the development, highlighted and summarized the objectives of the project and

showed that an organized plan is in place. The design also gave brief descriptions of the features that Student's E-Planner has to offer.

After managing to complete and develop Student's E-Planner, the development process was documented in **Chapter 6 : System Development and Implementation**. After a series of testing based on the V-Model (documented in **Chapter 7 : Testing and Maintaining the System**) , a thorough evaluation have been conducted after implementation which is stated in **Chapter 8: Implementing and Evaluating the System.**

From here, the summarization of the outcome of Student's E-Planner:

1. Delivers an interactive information system.
2. Delivers a sufficient and effective input and output of data.
3. Ease the work load of students by automating some of their tasks in managing time.
4. Fulfill the need for an online time management system that caters only for students.

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http://www.macromedia.com

http://www.studentcenter.org

http://www.1800calendar.com

http://www.e2do.com

APPENDIX

APPENDIX

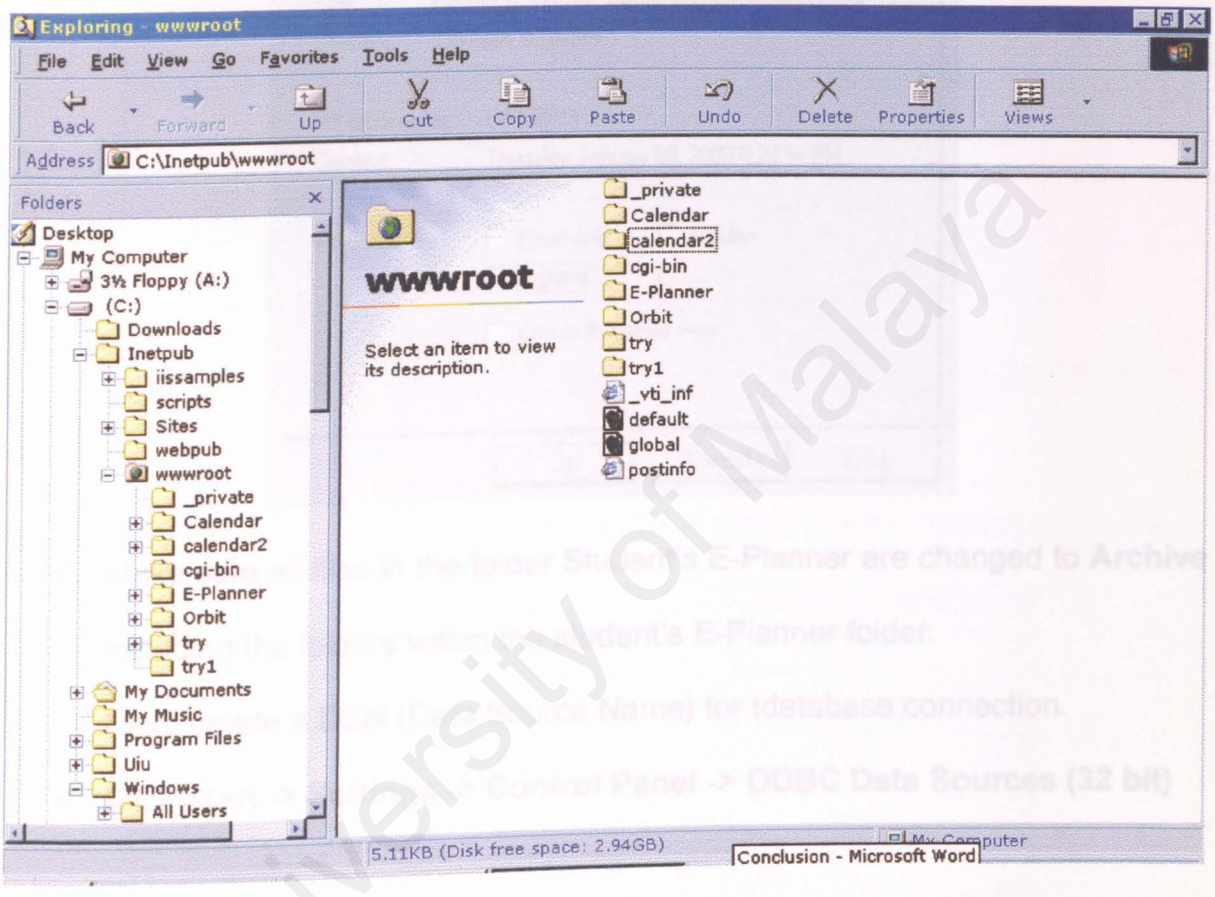
Student's E-Planner

Organize your future ... the easy way

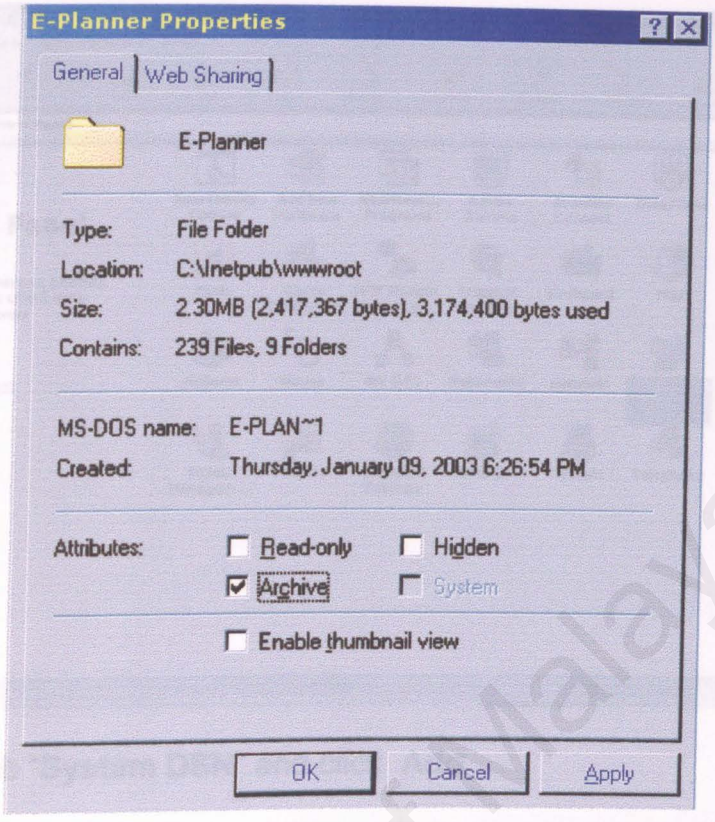
User Manual

INSTALLATION

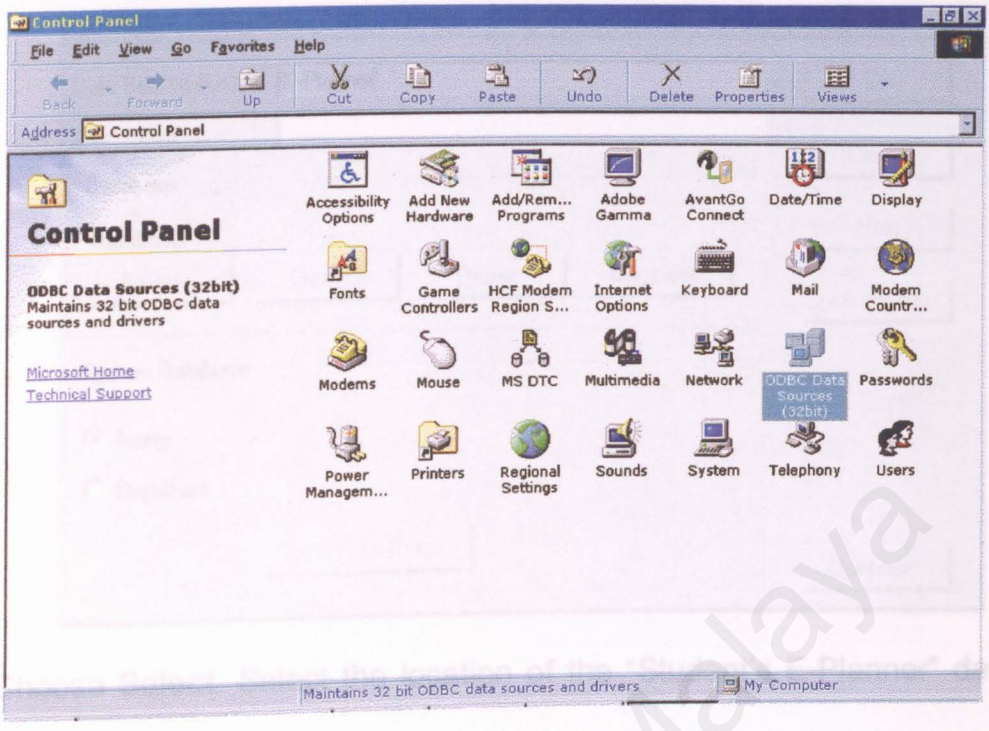
1. To upload the system, firstly upload the Student's E-Planner folder into the Personal Web Server or Internet Information Server installed in your computer. That means, copy the folder into this path: **c:\Inetpub\wwwroot\e-planner**



2. After you have transfer all these files into your hard drive, highlight all files in the Student's E-Planner folder, and then right-click your mouse. Choose **Properties**.
3. Change all the files attribute to **Archive**.

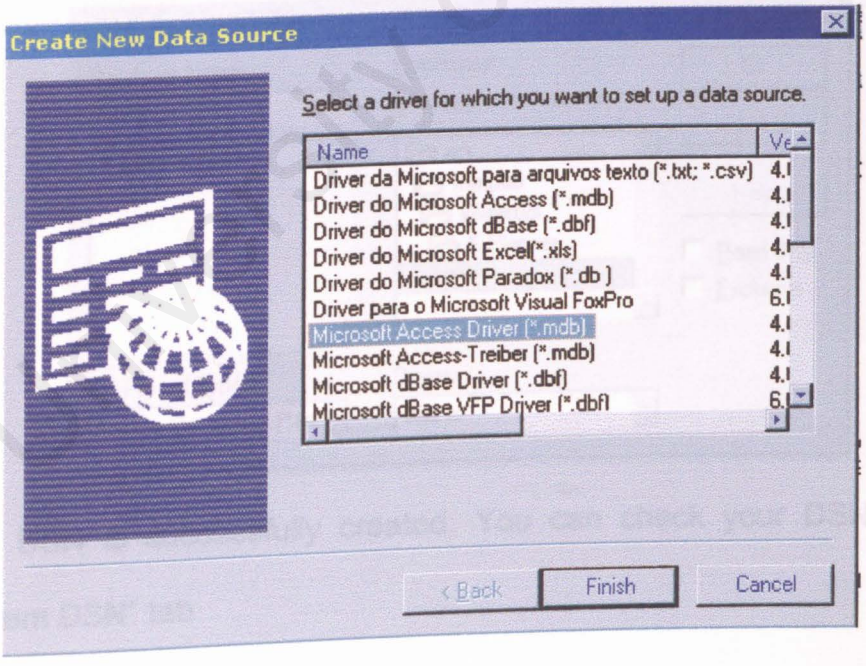


4. Make sure all files in the folder Student's E-Planner are changed to **Archive** including the folders within the student's E-Planner folder.
5. Next, create a **DSN** (Data Source Name) for tdatabase connection.
6. Click **Start -> Settings -> Control Panel -> ODBC Data Sources (32 bit)**

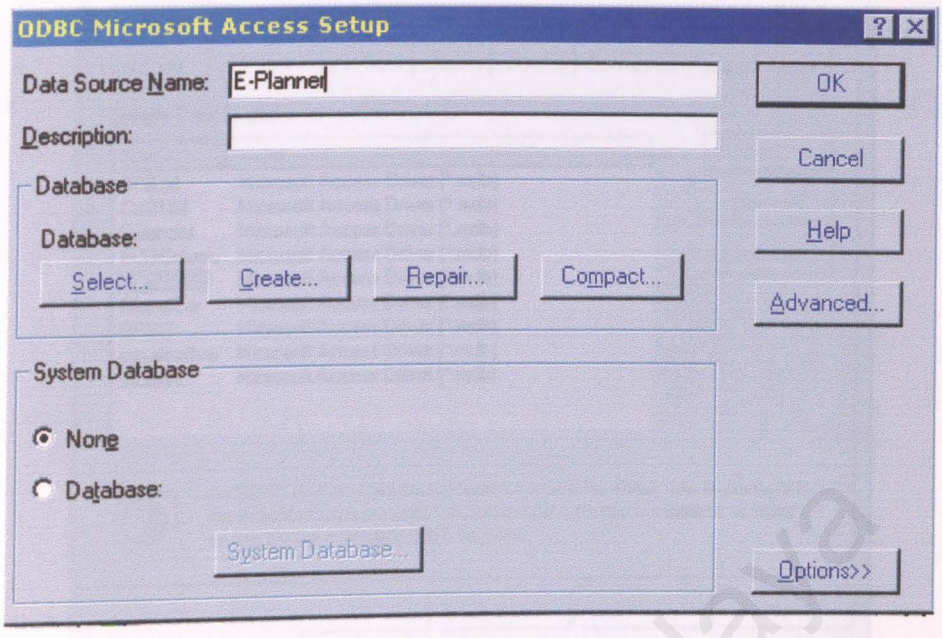


7. Choose the tab "**System DSN**" and click **Add**

8. Choose the appropriate driver – **Microsoft Access Driver (*.mdb).** Click OK.



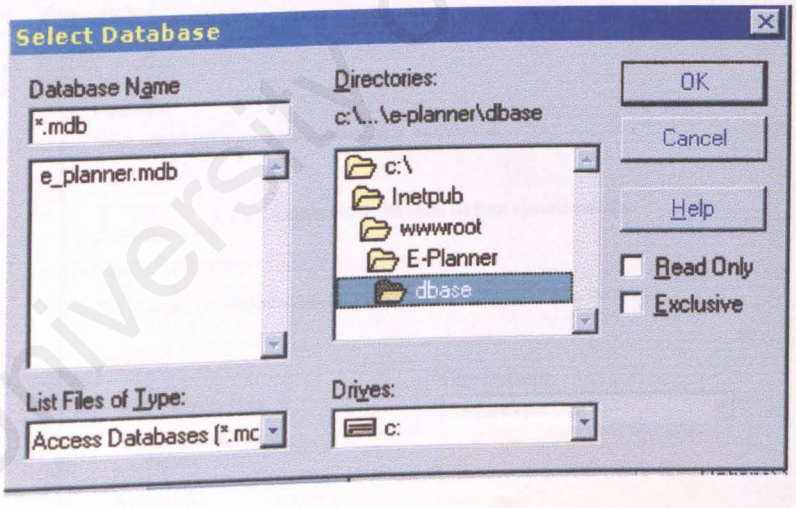
9. Type **E-Planner** in the Data Source Name textbox.



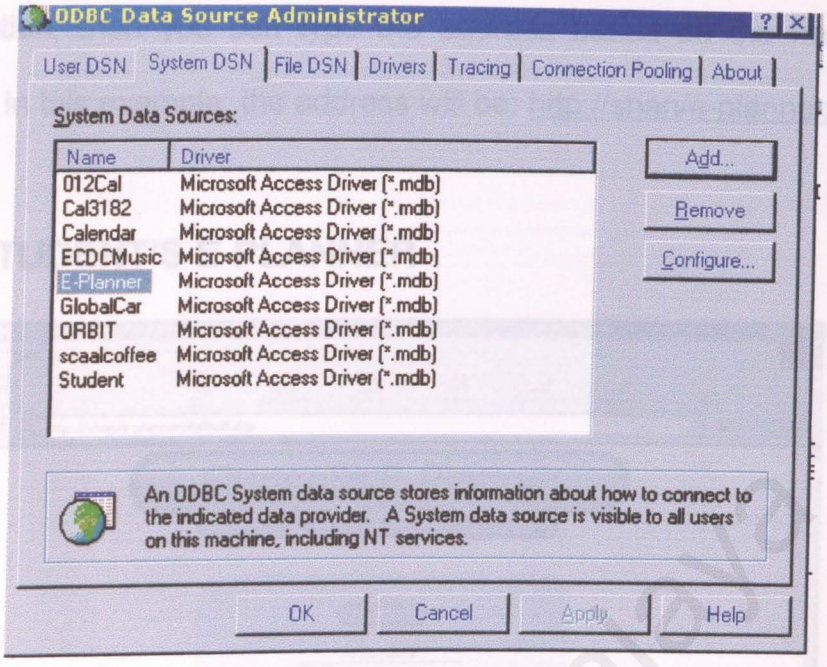
10. Choose **Select**. Select the location of the "Student's E-Planner" database.

    The path should be:

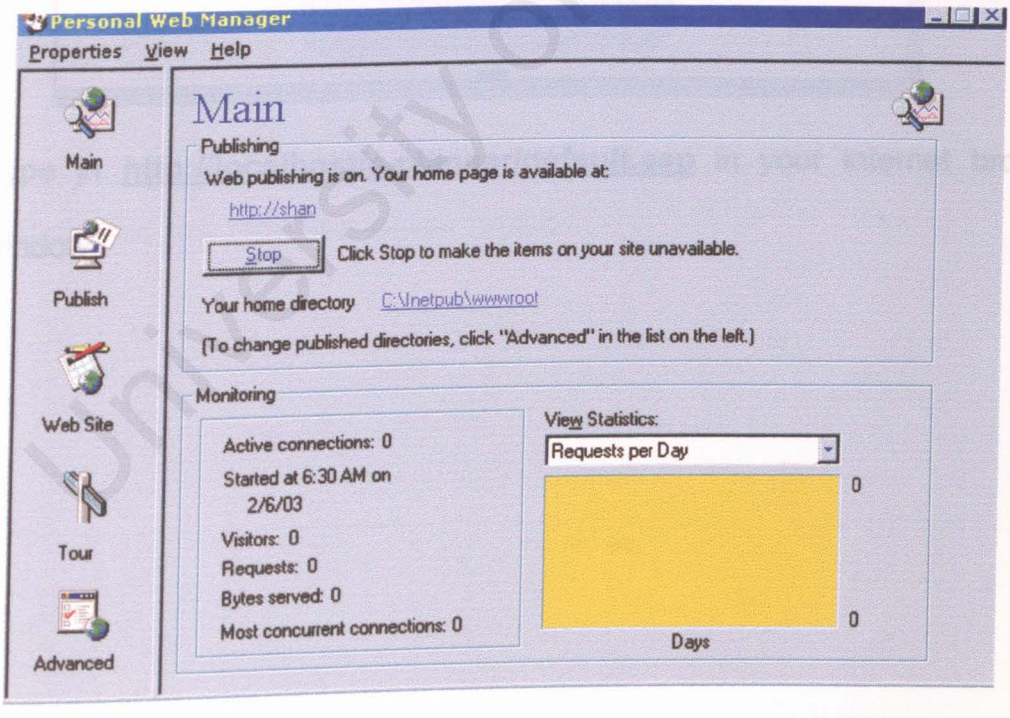
    C:\Inetpub\wwwroot\e-planner\dbase\e_planner.mdb. Click OK.



11. Your DSN is successfully created. You can check your DSN in the list "System DSN" tab



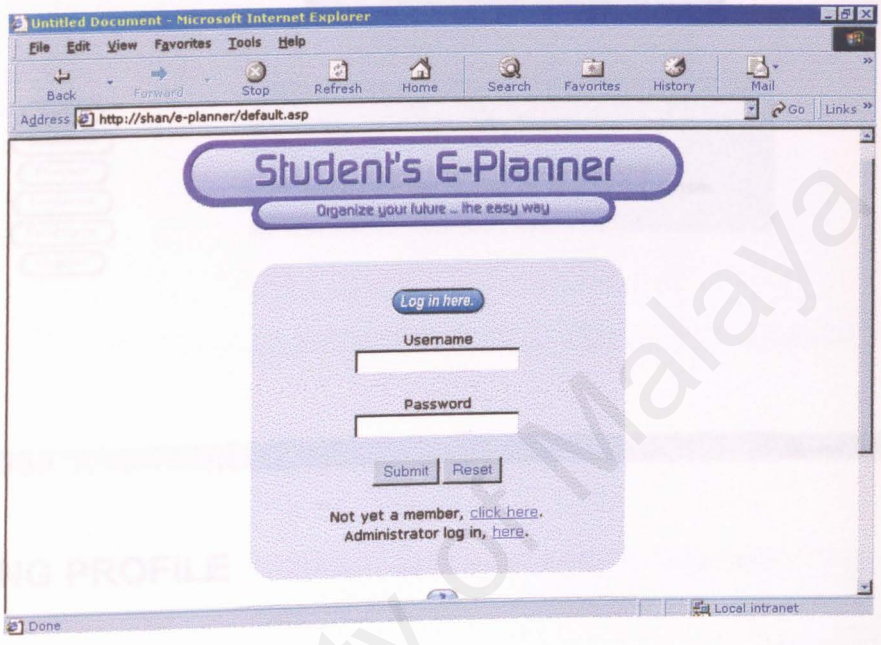
12. The last step is to on your Personal Web Server (PWS) or Internet Information Server (IIS).



13. Open your preferred Internet browser and test the connection. Type in: **http://localhost/e-planner/default.asp**. If you're using an Internet or LAN

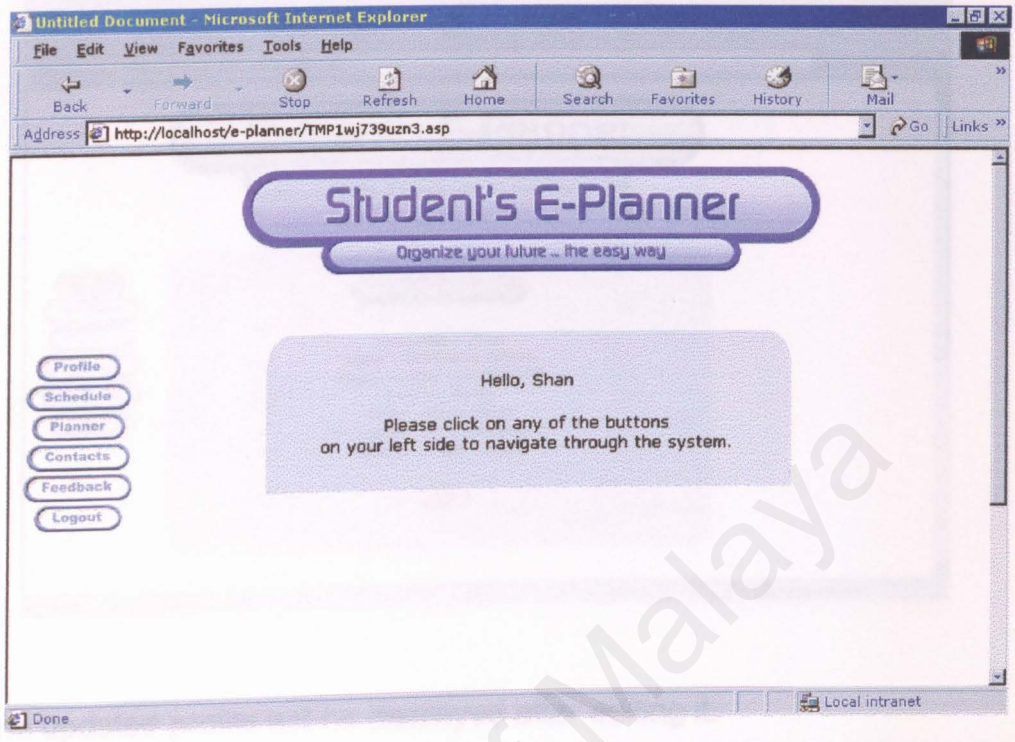
connection, then you can type the address based on the name of your server. In this example, the address will be: http://shan/e-planner/default.asp

VIEWING STUDENT'S E-PLANNER



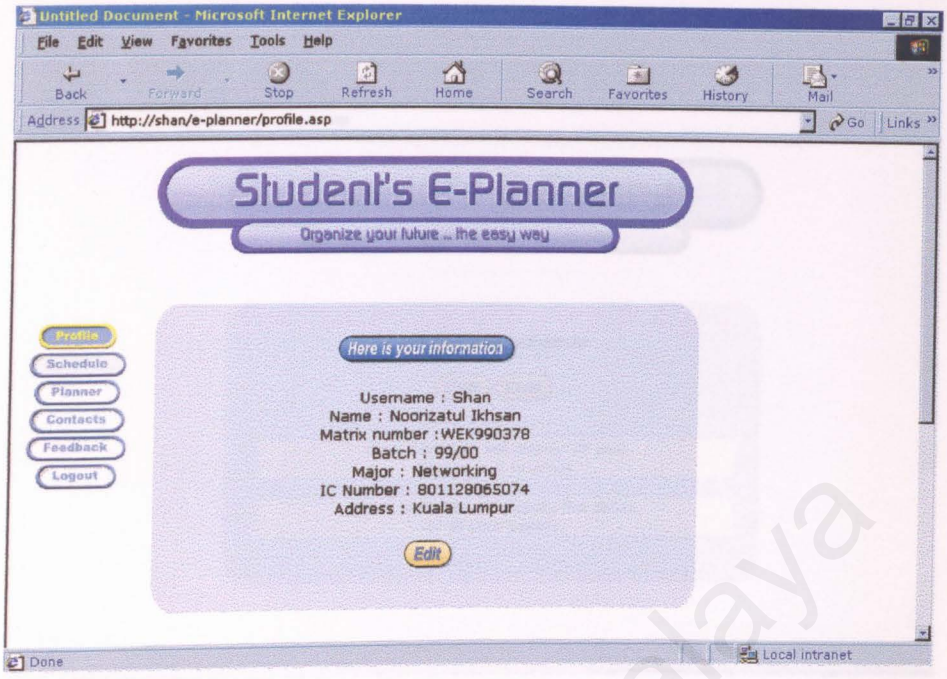
1. Type in http://localhost/e-planner/default.asp in your internet browser window.

2. The first page you will see after login process is the 'Home' page.

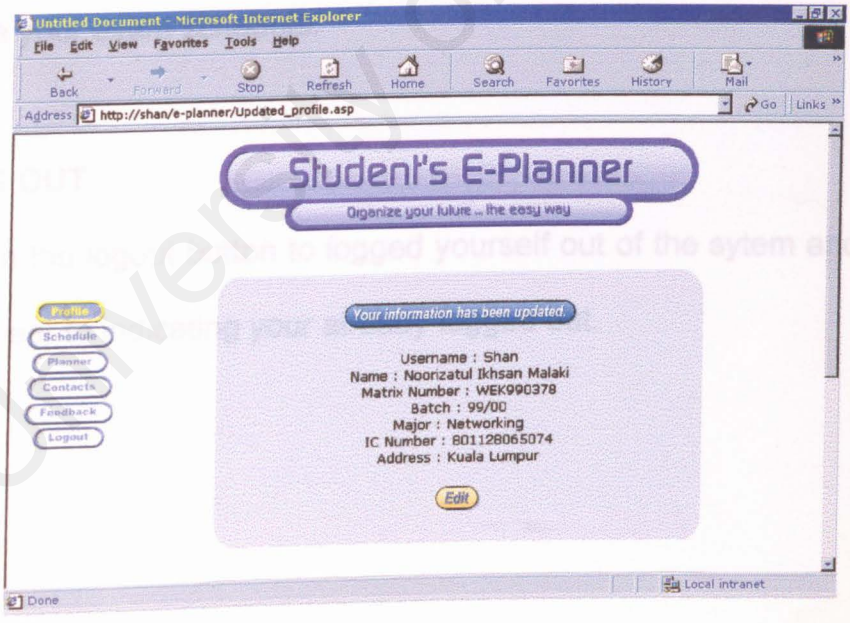


VIEWING PROFILE

1. Profile will display all related information about the user. Click the edit button to do any changes to your profile.

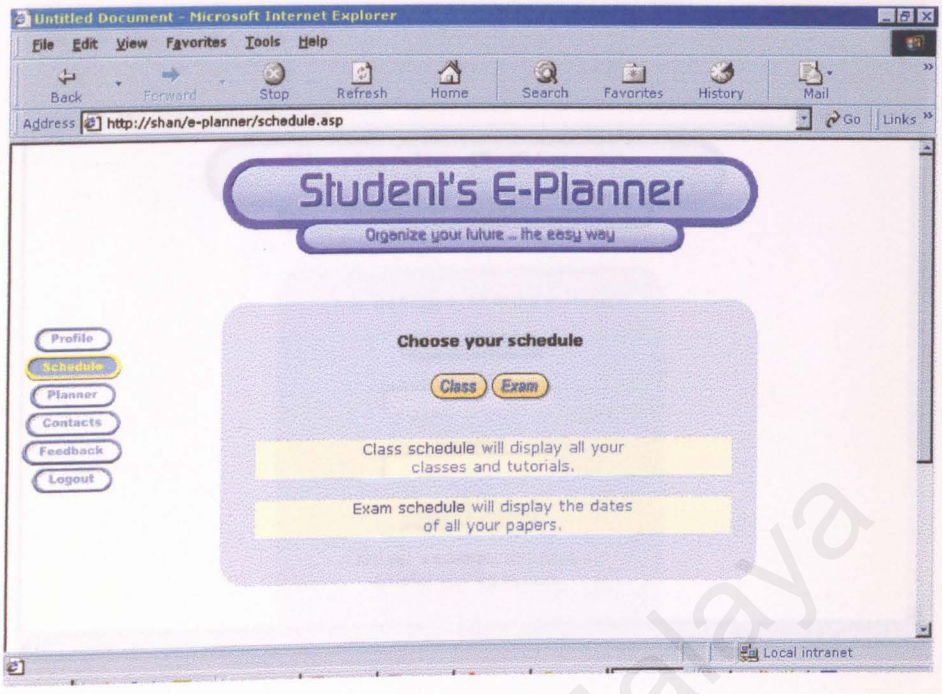


2. The updated profile will be displayed after editing it.



VIEWING SCHEDULE

1. You can choose to create your class schedule or tutorial schedule.



2. Click on the class button to create your class schedule or exam button to create your exam schedule.

LOGGING OUT

1. Click on the logout button to logged yourself out of the sytem and this page will appear to indicating your already logged out.